Outdoor Recreation Survey 1989/90

A Summary of How British Columbians Use and Value their Public Forest Lands for Recreation

Introduction

This summary presents the major findings of a landmark survey; the first ever to consider the full range of outdoor recreation opportunities and activities occurring in B.C.'s provincial forests.

Many surveys have looked at specific activities, such as wildlife viewing, or specific areas, such as Provincial Parks. This is the first survey, however, to look at the full spectrum of recreation activities taking place throughout provincial forests, representing about 85 per cent of B.C.'s land base.

The B.C. Forest Service recognizes the need for detailed, up-to-date information about the recreation use and value of provincial forests; particularly in view of the fundamental changes that are occurring in social priorities and expectations for how B.C.'s public forest lands are managed.

Public forest lands can no longer be managed strictly from an industrial point-of-view. The public is demanding that the full range of recreational, social, and environmental values be given greater consideration.

In 1989/90 the Forest Service commissioned this survey to gather information from B.C. residents about their recreation habits, and the value they place on recreation resources in provincial forests. Mailback questionnaires were sent to 10,000 B.C. residents, to give a representative sample of the entire provincial population.

The data resulting from this survey will assist recreation and resource managers by providing benchmark data on the uses and values of forest recreation resources for comparison with other forest resources.

This document presents a summary of the survey findings. A more comprehensive report is also available from:

Director, Recreation Branch
B.C. Forest Service
610 Johnson Street
Victoria, British Columbia
V8W 3E7

The survey considered recreation activities in the following recreation activity groups:

Nature Study
- scenic viewing
- wildlife viewing
- drawing/painting/photography
- gathering/collecting

Boating
- motor cruising
- sailing
- windsurfing
- kayaking
- rafting
- canoeing
- water skiing
- other boating

Motoring
- touring (including driving highways and backroads for the purpose of enjoying the scenery)
- four-wheeling
- trail biking
- ATV use
- snowmobiling

Fishing
- all types

Camping/swimming
- camping
- picnicking
- swimming
- beach activities
- skin/scuba diving
- surfing

Hiking/skiing
- hiking
- mountaineering/rock climbing
- hang gliding
- orienteering
- horseback riding
- snowshoeing
- downhill/cross-country skiing
- caving
- mountain biking

Hunting
- all types

All others
- all other recreation activities (e.g., gold panning)

Province of British Columbia
Ministry of Forests

Key survey findings

◆ Over 40 million visits per year

British Columbians use provincial forests far more than was previously estimated: more than 40 million Recreation User Days (RUDs) per year for the province. (An RUD is a full or part-day of recreation). Recreation use was last estimated at 15 million RUDs for the Ministry's 1984 Forest and Range Resource Analysis.

- At 40 million visits per year, provincial forests have approximately twice the usage of Provincial Parks (21 million RUDs).
- 41% of B.C. residents participate in recreation activities in provincial forests.
- The average B.C. resident spends 15 days per year participating in outdoor recreation in provincial forests.

◆ Over $1.5 billion expenditures per year

British Columbians spend more than $1.5 billion each year as they participate in recreation activities in provincial forests.

- The average B.C. household contributes $1,450 yearly to this provincial total.

◆ Over $100 million annual preservation value

British Columbians are willing to spend more than $113 million each year to protect and maintain recreation resources in provincial forests.

- Each adult B.C. resident is prepared, on average, to contribute $54 annually to ensure the preservation of provincial forest recreation resources.

◆ Nature study has the highest preservation value and participation of any recreation activity

British Columbians place great importance on nature study opportunities, including scenic and wildlife viewing, painting, and photography.

- Residents are prepared to spend $31 each per year to preserve the nature study opportunities in provincial forests. This amounts to more than $59 million annually for the province.
- The high preservation value placed on nature study supports the findings of the *1989 National Survey of Canadian Public Opinion on Forestry Issues* conducted by Forestry Canada, which found that wildlife protection was considered the most important use of Canada's forests, closely followed by wilderness preservation.
- British Columbians participate more in nature study than in any other recreation activity in provincial forests; more than 22 million Recreation Activity Days annually for the province.

Other important survey findings

- Hunters indicated they would tolerate greater cost increases than participants in any other outdoor recreation activity. Hunting is, however, the activity group with the lowest total use value for the province as a whole due to fewer participants.
- British Columbians spend considerably more money on recreation equipment than on any other recreational expenditure (even excluding major items such as 4X4s, boats, snowmobiles, or motorhomes). This trend is most pronounced in the less populated Prince Rupert, Prince George, Nelson and Cariboo forest regions.
- Residents in rural areas participate more in recreation activities in provincial forests than those living in the more heavily populated areas such as the Kamloops and Vancouver forest regions.
- Two-thirds of all outdoor recreation occurs in areas accessible by road and one-third in roadless areas.
- People in the 20 to 24-year age range participate most in outdoor recreation activities. Participation tends to drop off with age, beginning in the 45 to 54-year age range.
- Far more males than females take part in recreation activities in provincial forests.
- Participation tends to increase with rising household incomes, peaking in the $40,000 to $49,000 annual income range, and then dropping slightly in higher income categories.

Recreation use and value

It is important to know how much time B.C residents spend in provincial forests, what they do there, and how much they value recreation in provincial forests. This survey used the following two measures to give us this data; recreation use and recreation value.

Recreation use

Recreation use is a measure of the actual participation in recreation activities. Recreation use data can indicate how much time residents spend in provincial forests, what they do there, which forest region(s) they visit, and what time of year they go.

This survey uses two different measures of use, as follows:

- Recreation User Days (RUDs); an RUD is all or part of a calendar day spent participating in any form of recreation.
- Recreation Activity Days (RADs); an RAD is all or part of a calendar day on which a particular recreation activity took place. RADs are specific to each activity.

Respondents to the survey indicated they took part in about 2.4 recreation activities during a recreation user day.

RUDs and RADs, rather than calendar days, are used in this survey to measure recreation use.

Recreation value

Recreation value is a measure of the net benefit to society of a recreation activity, experience or opportunity. Net benefit is the total benefit less the cost of providing the activity, experience or opportunity.

Data on recreation value can indicate how much money residents spend on outdoor recreation in provincial forests, how much they spend on specific activities, which forest region they spend it in, and how much they are willing to pay to preserve recreation opportunities.

This survey uses two different measures of recreation value, as follows:

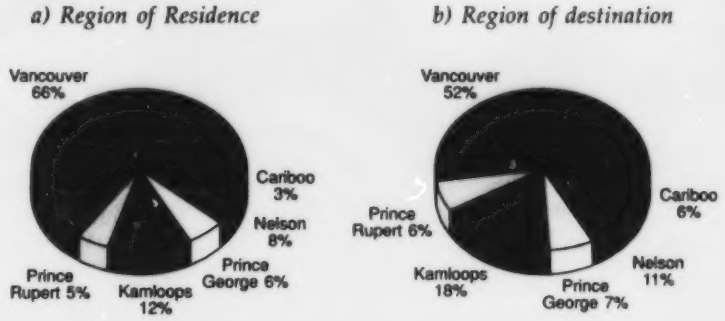
- Activity or use value; estimated by asking B.C. residents how much more they would have to pay before they would stop using provincial forests for recreation.
- Preservation or non-use value; estimated by asking residents how much they would voluntarily pay each year to maintain and protect the recreation resources of B.C.'s provincial forest lands for themselves and future generations.

Recreation use in provincial forests

Use by forest region

This section reports adult recreation use by forest region of residence and by region of destination.

Figure 1: Recreation use by forest region of residence and destination

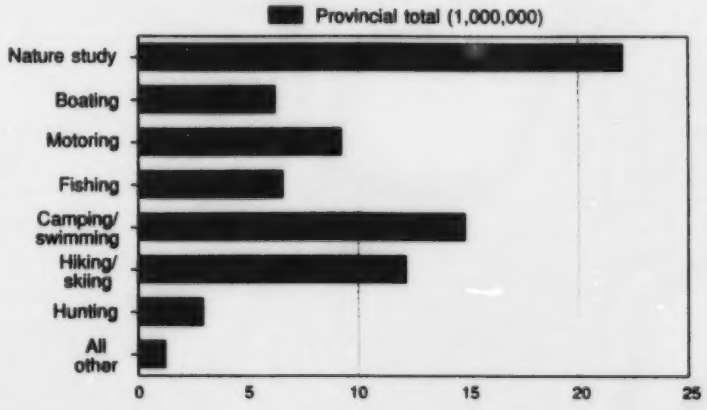


Use by recreation activity

This section reports the number of adult Recreation Activity Days recorded for each activity.

- British Columbians participate more in nature study than in any other recreation activity group in provincial forests; more than 22 million RADs annually for the province (22,042,000).
- The camping/swimming group was second with a total of 14,853,000 RADs, followed by the hiking/skiing group with a total of 12,183,000 RADs.
- Hunting was the activity group with the least participation of the eight activity groups, with a total of 2,943,000 RADs.

Figure 2: Recreation use by activity group



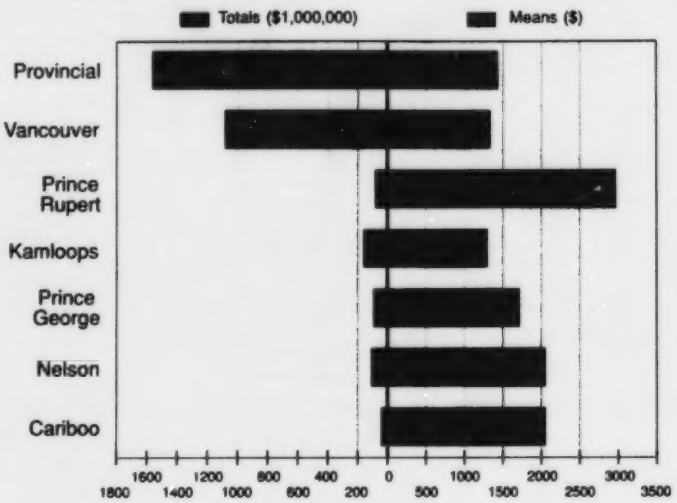
Expenditures on outdoor recreation in provincial forests

Total expenditures

This section reports the total annual household expenditures on outdoor recreation in provincial forests.

- The average household expenditure per year was $1,436.52 resulting in a total annual expenditure of $1,561,703,000 for the province as a whole.

Figure 3: Annual recreation expenditure by region

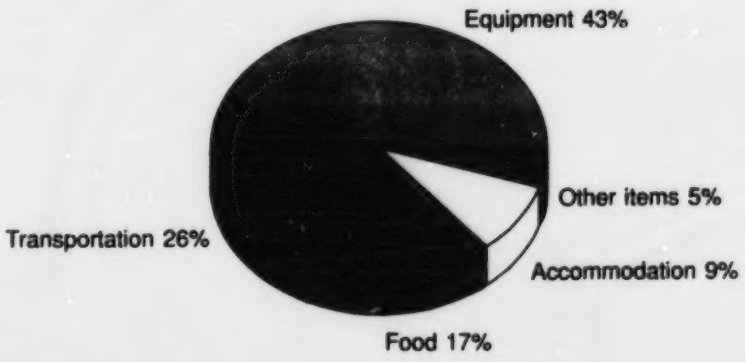


Expenditures by expenditure category

This section reports household expenditures by category: transportation, accommodation, food, equipment, and "other items."

- British Columbians spend considerably more money on recreation equipment than on any other recreational expenditure (even excluding major items such as 4X4s, boats, snowmobiles, or motorhomes). This trend is most pronounced in the less populated Prince Rupert, Prince George, Nelson and Cariboo forest regions.

Figure 4: Expenditures by expenditure category



Value of recreation activities in provincial forests

This section reports the value of recreation use for each recreation activity group in two ways:
1. total use value; and, 2. mean use value per participant.

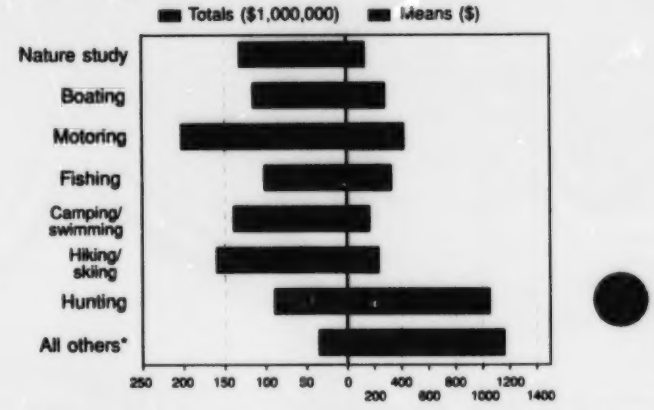
Total use values:

- The greatest total annual use value for the province as a whole was for the motoring group of activities at $202,671,000 per year.
- The lowest total use value for the province as a whole was for the hunting activity group at $89,657,000 per year.

Mean use values per participant:

- Hunters, however, would tolerate the greatest cost increase in their recreation activity. The cost to each hunter in B.C. would, on average, have to increase by $1,054.18 per year before participants would stop hunting.

Figure 5: Recreation value by activity group



* Extremely small response rates in all regions except Vancouver for the "All others" activity groups resulted in unreliably high mean and total values for this specific group.

Preservation value of outdoor recreation in provincial forests

This section reports the preservation value of outdoor recreation resources in provincial forests in two ways
1. total preservation value; and, 2. mean preservation value per resident.

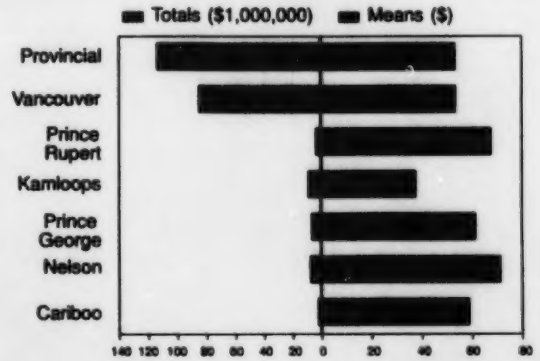
Total preservation value:

- The total preservation value for the whole province was $113,986,000 per year.

Mean preservation value:

- Each adult was prepared, on average, to contribute $53.62 per year to protect and maintain the recreation resources in B.C.'s provincial forest.

Figure 6: Annual preservation value of forest recreation for the province and each region



Recycled Paper

Outdoor Recreation Survey 1989/90

How British Columbians Use and Value their Public Forest Lands for Recreation

Ministry of Forests
Recreation Branch
October, 1991

92-03530/

Foreword

The British Columbia Forest Service has the mandate to manage, protect and conserve British Columbia's forest and range resources. This includes the responsibility to provide the public with opportunities for outdoor recreation, including the viewing of scenic landscapes and the enjoyment of wilderness experiences.

The B.C. Forest Service also has a responsibility to consider the recreational aspects of fish, wildlife, and cultural values in resource planning.

In order to carry out this mandate and meet these responsibilities, the importance and value of outdoor recreation in provincial forests needs to be assessed. The Forest Service commissioned an outdoor recreation survey in 1989/90 as a step toward providing the necessary information. Mailback questionnaires were sent to 10,000 B.C. residents. This was the first ever province-wide survey of the recreation use and value of provincial forests to B.C. residents.

This report presents the findings of that survey. It contains information that will assist those considering the uses and values of B.C.'s recreation resources alongside timber, range, fish, wildlife, mineral, heritage, and other resource values.

The data in this report will be updated and refined through additional studies as time and resources permit.

The **Executive Summary** highlights the key survey findings.

Section 1 gives background information about the purpose of the survey and describes the concepts and terms used to determine recreation use and value.

Sections 2 - 5 present the results of the survey and **Section 6** explains its methodology and assesses the response rate to the survey questionnaire.

Section 7 contains supporting tables, a glossary of technical terms, a list of related recreation research conducted by various groups and agencies in B.C., and the survey questionnaire.

Written comments on this report can be sent to:

Director, Recreation Branch
B.C. Forest Service
610 Johnson Street
Victoria, British Columbia
V8W 3E7

Acknowledgements

Recreation Branch appreciates the people and agencies who have contributed to this survey.

In addition to Forest Service staff, we wish to thank staff from the Ministry of Environment who assisted in the design and preparation of the survey.

We wish to especially thank those individuals who committed their time and energy to completing and returning a copy of the questionnaire.

Recreation Branch acknowledges Campbell Goodell Consultants Ltd. and Quantum Communications for their assistance in carrying out and reporting the findings of this survey.

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Executive summary

This report presents the findings of a landmark survey; the first ever to consider the full range of outdoor recreation opportunities and activities occurring in B.C.'s provincial forests.

Many surveys have looked at specific activities, such as wildlife viewing, or specific areas, such as Provincial Parks. This is the first survey, however, to look at the full spectrum of recreation activities taking place throughout provincial forests, representing about 85 per cent of B.C.'s land base.

The B.C. Forest Service recognizes the need for detailed, up-to-date information about the recreation use and value of provincial forests; particularly in view of the fundamental changes that are occurring in social priorities and expectations for how B.C.'s public forest lands are managed.

Public forest lands can no longer be managed strictly from an industrial point-of-view. The public is demanding that the full range of recreational, social, and environmental values be given greater consideration.

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The data presented in this report will assist recreation and resource managers by providing benchmark data on the uses and values of forest recreation resources for comparison with other forest resources.

This survey considered the following recreation activities and activity groups:

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Key survey findings

◆ Over 40 million visits per year

British Columbians use provincial forests **far more** than was previously estimated: more than **40 million Recreation User Days (RUDs) per year** for the province. (An RUD is a full or part-day of recreation). Recreation use was last estimated at 15 million RUDs for the Ministry's 1984 Forest and Range Resource Analysis.

- At 40 million visits per year, provincial forests have approximately **twice the usage** of Provincial Parks (21 million RUDs).
- **41% of B.C. residents** participate in recreation activities in provincial forests.
- The average B.C. resident spends **15 days per year** participating in outdoor recreation in provincial forests.

◆ Over $100 million annual preservation value

British Columbians are willing to pend more than **$113 million each year** to protect and maintain recreation resources in provincial forests.

- Each adult B.C. resident is prepared, on average, to contribute **$54 annually** to ensure the preservation of provincial forest recreation resources.

◆ Over $1.5 billion each year

British Columbians spend more than **$1.5 billion each year** as they participate in recreation activities in provincial forests.

- The average B.C. household contributes **$1,450 yearly** to this provincial total.

◆ Nature study has the highest preservation value and participation of any recreation activity

British Columbians place **great importance** on nature study opportunities, including scenic and wildlife viewing, painting, and photography.

- Residents are prepared to spend **$31 each per year** to preserve the nature study opportunities in provincial forests. This amounts to more than **$59 million annually** for the province.
- The high preservation value placed on **nature study** supports the findings of the *1989 National Survey of Canadian Public Opinion on Forestry Issues* conducted by Forestry Canada, which found that **wildlife protection** was considered the **most important use** of Canada's forests, closely followed by wilderness preservation.
- British Columbians participate **more** in **nature study** than in any other recreation activity in provincial forests; more than **22 million** Recreation Activity Days annually for the province.

Other important survey findings

- **Hunters** indicated they would tolerate **greater** cost increases than participants in any other outdoor recreation activity. **Hunting** is, however, the activity group with the **lowest total use value** for the province as a whole due to fewer participants.
- British Columbians spend considerably more money on **recreation equipment** than on any other recreational expenditure (even **excluding** major items such as 4X4s, boats, snowmobiles, or motorhomes). This trend is most pronounced in the less populated Prince Rupert, Prince George, Nelson and Cariboo forest regions.
- Residents in **rural** areas participate **more** in recreation activities in provincial forests than those living in the more heavily populated areas such as the Kamloops and Vancouver forest regions.
- **Two-thirds** of all outdoor recreation occurs in **areas accessible by road** and **one-third** in **roadless** areas.
- People in the **20 to 24-year** age range participate **most** in outdoor recreation activities. Participation tends to drop off with age, beginning in the 45 to 54-year age range.
- Far **more males** than **females** take part in recreation activities in provincial forests.
- Participation tends to **increase** with rising household **incomes**, peaking in the $40,000 to $49,000 annual income range, and then dropping slightly in higher income categories.

1.0 Introduction

The B.C. Forest Service is responsible for maintaining the opportunity for residents and visitors to participate in a wide range of recreation activities in provincial forests. These range from the enjoyment of scenic views or wilderness experiences to the use of developed recreation sites or trails in a variety of settings.

The Forest Service has long recognized that British Columbians place a high value on the recreation resources in public forest lands. Without sufficient data, however, it has been difficult to gauge how much B.C. residents actually use and value provincial forests and to manage the forest land base accordingly.

In recent years a number of outdoor recreation studies have been conducted in B.C., including joint studies between the Forest Service and other agencies. Agencies and organizations that have conducted studies in the past include the:

- Outdoor Recreation Council of B.C.
- Wilderness Tourism Council
- Ministry of Lands and Parks
- Ministry of Development, Trade and Tourism
- Ministry of Environment
- B.C. Forest Service

(See Section 7.4 for a list of related recreation research.)

Most of these studies have looked at specific recreation activities or specific areas. It was necessary, therefore, to carry out a study with a broader scope to measure the use and value of **all** recreation resources over the **entire** provincial forest land base.

This report is intended to assist recreation and resource managers, by providing benchmark data on the uses and values of forest recreation resources for comparison with other forest resources.

1.1 Recreation use

It is important to know how much time B.C. residents spend in provincial forests and what they do there. Recreation use is a measure of the actual participation in recreation activities.

This survey uses two different measures of use, as follows:

- **Recreation User Days (RUDs)**; an RUD is all or part of a calendar day spent participating in any form of recreation.
- **Recreation Activity Days (RADs)**; an RAD is all or part of a calendar day on which a *particular recreation activity* took place. RADs are specific to each activity.

Respondents to the survey indicated they took part in about **2.4 recreation activities** during a recreation user day.

RUDs and RADs, rather than calendar days, are used in this report to measure recreation use.

1.2 Recreation value

It is important to know how much the public values recreation in provincial forests.

Recreation value is a measure of the net benefit to society of a recreation activity, experience or opportunity. Net benefit is the total benefit less the cost of providing the activity, experience or opportunity.

This survey uses two different measures of value, as follows:

- ***activity or use value***; estimated by asking B.C. residents how much more they would have to pay before they would stop using provincial forests for recreation.
- ***preservation or non-use value***; estimated by asking residents how much they would voluntarily pay each year to maintain and protect the recreation resources of B.C.'s provincial forest lands for themselves and future generations.

1.3 Using the survey results

This report presents both provincial data and detailed regional data in the tables in **Section 7**.

Since the relatively large population in the Vancouver forest region strongly influences the provincial totals, **it is important to consider the regional data** as well. For example: hunting is the least-valued activity for the province as a whole, yet it is the most valued activity in the Prince Rupert and Prince George forest regions.

Studies for specific areas in provincial forests, such as proposed wilderness study areas, will require more detailed data to supplement the provincial averages presented in this report.

More detailed information on hunting, fishing, and wildlife viewing values is available from the Ministry of Environment and Environment Canada. Detailed information on camping and other uses within Provincial Parks is available from the Ministry of Lands and Parks.

2.0 Recreation use in provincial forests

2.1 Total use

This section measures the **number of days** residents spent participating in outdoor recreation activities in B.C.'s provincial forests.

The results are found in **Table 1**.

- The total number of RUDs for **adult** residents of B.C. was **32,720,000** and the total RUDs for the whole population, including children, was **40,900,000**.
- The average adult spent **15.39 days** participating in outdoor recreation activities in B.C.'s provincial forests during the one year period from April 1989 to March 1990.

Individuals living in the smaller, rural areas are likely to spend more recreation time in provincial forests than their urban counterparts.

2.2 Use by forest region

This section reports adult recreation use by forest region in two ways:

1. The **number of RADs** recorded by **region of residence**. The results are found in **Figure 1** and **Table 1**.
2. The **number of RADs** recorded by **region of destination**. The results are found in **Figure 1** and **Table 2**.

Table 1 shows:

- Residents of the **Prince Rupert** forest region spent the greatest average number of days per resident recreating in provincial forests, **29.04 days** each, followed closely by residents in the **Cariboo (26.95 days)** and the **Nelson (25.99 days)** forest regions.
- Residents of the **Prince George (17.55 days)** and the **Kamloops (17.03 days)** forest regions spent significantly less time recreating in provincial forests.
- Residents of the **Vancouver** forest region spent the **lowest** average number of days per resident **(13.56 days)** but they accounted for **66 per cent** of the total recreation use in the province **(21,457,000 adult RUDs)**.

Table 2 shows:

- The **Vancouver** forest region had the **highest total use** by region of destination. Residents throughout the province spent, on average, **9.92 days** recreating in provincial forests in this region. This represents a total of **17,125,000 adult RUDs** for this region (including residents *not* living in the region); considerably higher than for any other forest region.
- The **next highest** total recreational use was in the **Kamloops** forest region with **5,727,000 adult RUDs**. Residents throughout the province spent, on average, **3.28** days here.
- Total use in the **Nelson** forest region was **3,607,000**, with an average of **2.04** days. For the **Prince George** forest region it was **2,179,000**, with an average of **1.24** days.
- The **lowest total use** was for the **Prince Rupert** and the **Cariboo** forest regions with a total of **2,055,000** and **2,027,000 RUDs** respectively. Average use for each of these regions was **1.12 days** per B.C. resident.

2.3 Use by recreation activity

This section reports the **number of adult Recreation Activity Days** recorded for each activity group and provides a **regional** breakdown.

The results are found in **Figure 2**, **Table 3** and **Table 4**.

Figure 2 shows:

- British Columbians participate **more** in **nature study** than in any other recreation activity group in provincial forests with a total of **22,042,000 RADs.**
- The **camping/swimming** group was second with a total of **14,853,000 RADs**, followed by the **hiking/ skiing** group with a total of **12,183,000 RADs**.
- **Hunting** was the activity group with the **least** participation of the eight activity groups, with a total of **2,943,000 RADs**.

Table 3 shows:

Nature study

- **Highest** participation was by residents of the **Cariboo** and **Nelson** forest regions (with the exception of drawing, painting, and photography - residents of the Prince Rupert forest region reported the highest participation in these activities).
- **Lowest** participation was by residents of the **Prince George** forest region.

Boating

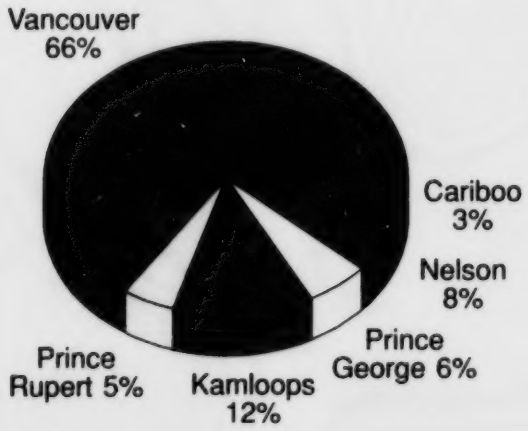
- **Highest** participation is for **motor cruising** and **canoeing**.
- Residents of the **Vancouver** forest region participate in **sailing, windsurfing, canoeing and kayaking** to a greater extent than residents of most other forest regions.
- Participation in these activities was **highest** in the following forest regions: **sailing** - the **Nelson** forest region; **windsurfing** - the **Prince George** forest region; and **canoeing** - the **Cariboo** forest region.

Motoring

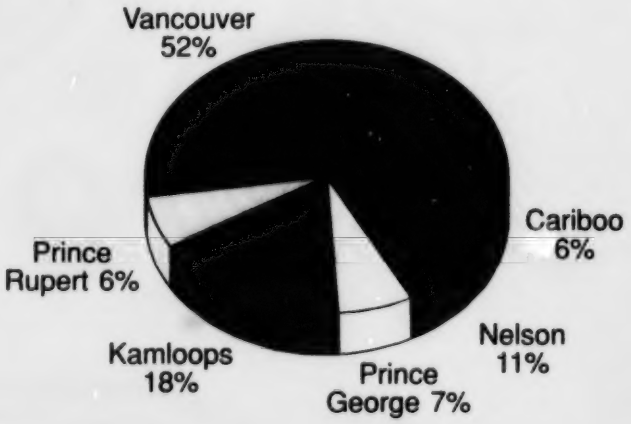
- **Highest** participation was in the **Cariboo** forest region with an average of **8.80 RADs** per adult. This was followed by residents of the **Nelson (4.80 RADs)** and **Prince Rupert** forest regions **(4.32 RADs)**.

Figure 1: Recreation use by forest region of residence and destination

a) Region of residence



b) Region of destination



- Motoring activities are somewhat **less popular** with residents of the **Vancouver** forest region, by comparison to other forest regions.

Fishing:

Fishing, like hunting, is considered an activity *group* as well as an individual *activity*.

- Participation is **highest** in the **Prince Rupert** forest region, with an average of **13.24 RADs** per year.
- Participation is **lowest** in the **Vancouver** forest region with an average of **3.00 RADs** per year.
- All other forest regions have an average adult participation rate of approximately **5 to 6 RADs** per year.

Camping/swimming:

- Skin/scuba diving activity is minimal and is *not* concentrated in coastal regions.
- There was no record of any surfing activity.

Hiking/skiing:

- Participation in **hiking** is relatively **high** for all forest regions, with an **average of 3.56 to 5.88 RADs** per adult.
- Participation in **downhill** and **cross-country skiing** is **least** in the **Vancouver** forest region **(0.91 RADs)** but this still constitutes over **50 per cent** of the total RADs for these activities across the province.
- Hang gliding, orienteering, snowshoeing and caving seem to have a limited following.

Hunting:

- The **highest** average was reported in the **Cariboo** forest region **(6.12 RADs)**.
- The **lowest** average was reported in the **Vancouver** and **Kamloops** forest regions with **1.00** and **1.76 RADs** respectively; noticeably less than in other forest regions. Residents of the less populated forest regions participate more in hunting.

All others:

- Activities reported in this category were minimal in all forest regions. The **highest** average was reported in **Kamloops** region with **1.16 RADs**.

Figure 2: Recreation use by activity group

This figure shows the total adult RADs for the province by activity group.

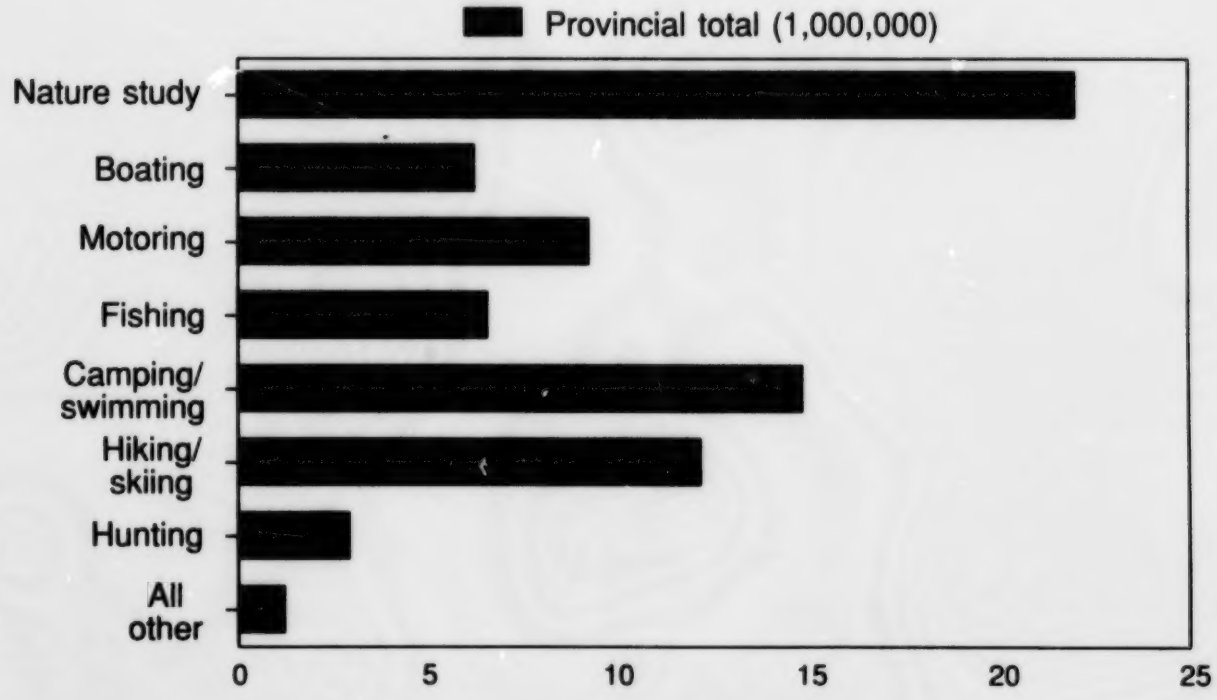


Table 4 shows:

- **Scenic viewing** had the **highest participation**, with an average of **6.88 days** per person and a total of **11,774,000 adult RADs**. This is considerably higher than for any other recreation activity.
- **Fishing and hiking** tied for **second** with an average participation of **3.84 days** per person and a total of **6,571,000 adult RADs** each.

Please note: When **fishing** and **hunting** are considered as *individual* activities in Table 4, which compares 35 activities, they are rated as second and sixth respectively. However, when considered as activity *groups* in **Table 6**, fishing and hunting rated fifth and seventh out of eight.

Note also: The greatest number of total RADs for almost every activity are reported in the Vancouver forest region, due to the relatively large population. The exceptions were ATV use, snow-mobiling, hang gliding and caving.

2.4 Use by Recreation Opportunity Spectrum (ROS) Class

This section reports adult **recreation use** by the **type of area** where the use occurred, as classified under the **Recreation Opportunity Spectrum (ROS)** (see sidebar).

The results are found in **Table 5**, **Table 6**, and **Table 9**.

Table 5 shows:

- **Motoring** was reported in all ROS classes even though it is, by definition, restricted in primitive areas and only permitted in some semi-primitive areas.
- **Fishing** occurred primarily in primitive and semi-primitive areas.
- **Hunting** occurred primarily in primitive and semi-primitive areas with little activity recorded in roaded areas.

Please note: Respondent's perceptions of the remoteness of their recreation experiences may differ from the definitions used for ROS classes.

Table 6 shows:

- **Most** outdoor recreation activities occurred in **roaded** and **rural** areas, followed by **semi-primitive** and **primitive** areas respectively.
- There were slightly **more** overnight excursions into primitive settings than into semi-primitive settings.

Please note: 100 per cent of the *all other* recreation activities were recorded for the primitive and semi-primitive categories. Some respondents may not have referred to every activity listed in an activity group and may have reported some activities in the *all other* category. For example: they may not have looked for hang gliding, horseback riding and mountain biking in the hiking/skiing category.

Recreation Opportunity Spectrum

The Forest Service divides outdoor recreation opportunities into four categories:

- **Primitive**: more than eight kilometres from a road on which a highway vehicle can be driven; a natural environment, minimal evidence of human use, no motorized access.
- **Semi-primitive**: less than eight kilometres from a road on which a highway vehicle can be driven; a natural appealing environment, some evidence of human use, may or may not have motorized access.
- **Roaded resource land**: accessible by highway vehicle but with a natural environment and no more than moderate evidence of human use.
- **Rural**: accessible by a highway vehicle, a substantially modified environment and extensive evidence of human use.

2.5 Use by season

This section reports the amount of adult **recreation use** occurring by **season**.

The results are shown in **Table 7** and **Table 8**.

- The **greatest recreation use, 10,442,000 RUDs**, occurred during the **summer** months (July, August, September), followed by spring, (April, May, June), fall (October, November, December) and then winter (January, February, March). The **total use** for the entire year was **32,720,000 RUDs**.
- **Participation** in outdoor recreation in provincial forests ranged from **33 per cent** of the population in the **winter** to **45 per cent** in the **spring**. The **annual average** was **41 per cent**.

2.6 Use by activity by season

This section reports the **seasonal breakdown** of adult recreation **use** by **activity** for each region and the province as a whole.

The results are shown in **Table 9**.

- Activities followed expected seasonal patterns.
- It is interesting to note that RUDs have been recorded for most winter activities (snowmobiling, downhill and cross-country skiing) except for snowshoeing, year-round - even during the summer.

3.0 Expenditures on outdoor recreation in provincial forests

3.1 Total expenditures

This section reports the **total household expenditures** on outdoor recreation in provincial forests by residents of each forest region and the province as a whole.

The results are shown in **Figure 3, Table 10** and **Table 11**.

- The **average household expenditure** per year was **$1,436.52** resulting in a **total annual expenditure** of **$1,561,703,000** for the province as a whole.
- Residents in the **Prince Rupert** forest region spent the **most** (considerably more, per household, than the residents of any other forest region).
- Residents of the **Kamloops** forest region spent the **least**, per household, followed by residents of the **Vancouver** forest region.

Please note: Residents of the **Vancouver** forest region were, however, responsible for **69 per cent** of the total annual provincial expenditures on recreation activities in provincial forests. This was followed by residents of the Kamloops forest region who contributed 10 per cent of the total provincial expenditure.

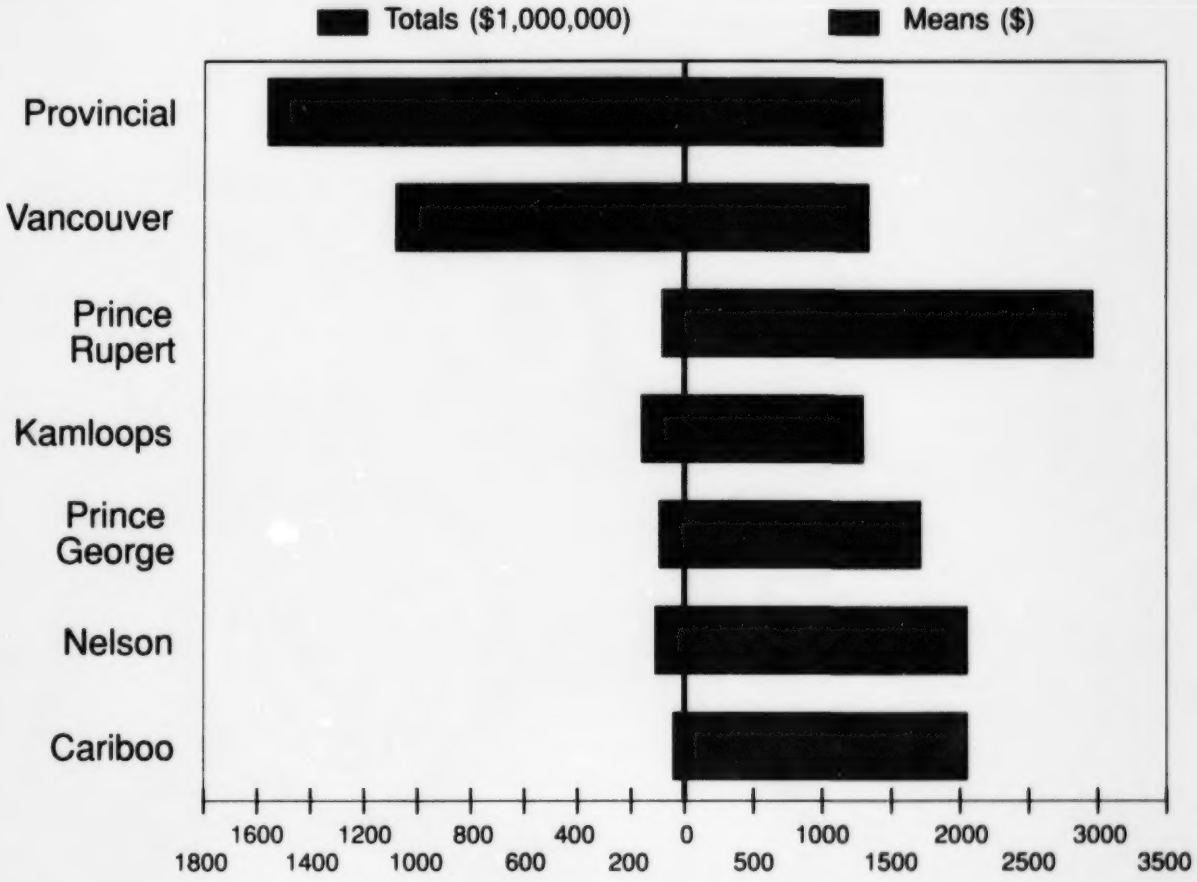
3.2 Daily expenditures

This section reports the **daily household expenditure** on outdoor recreation activities by forest region and for the province as a whole.

The results are found in **Table 12** and **Table 13**.

- **Each household** in B.C. spent, on average, **$93.33** per RUD. This **totalled $101,444,000 per RUD** or **$4,279,000 per calendar day** for the province.

Figure 3: Annual recreation expenditure by region
This figure shows mean and total annual household expenditures for the province and each forest region.



- The daily household expenditure was **greatest** for residents of the **Prince Rupert** forest region, followed by that of the **Prince George** and **Vancouver** forest region households.
- The average household in the **Kamloops** and **Nelson** forest regions spent the **least** amount.

Please note: Vancouver region residents spent **77 per cent** of the provincial total each day and residents of the **Kamloops** forest region spent **9 per cent**. Regional proportions of the total daily expenditure closely reflect population distributions for the province.

3.3 Expenditures by expenditure category

This section reports **household expenditures** by **category**: transportation, accommodation, food, equipment, and "other items."

The results are found in **Figure 4**, **Table 14** and **Table 15**.

- Each household in B.C. spent considerably **more on equipment** than on **any other expenditure** for outdoor recreation, followed by transportation.
- All regions demonstrated a similar pattern of expenditures, although Prince Rupert, Prince George, Nelson and Cariboo forest regions tended to spend more on equipment and less on accommodation than the Vancouver and Kamloops forest regions.

Please note: In **Table 18**, figures for expenditure categories are compared to results from similar surveys done by Environment Canada in 1987.

3.4 Forest and wildlife activities expenditures

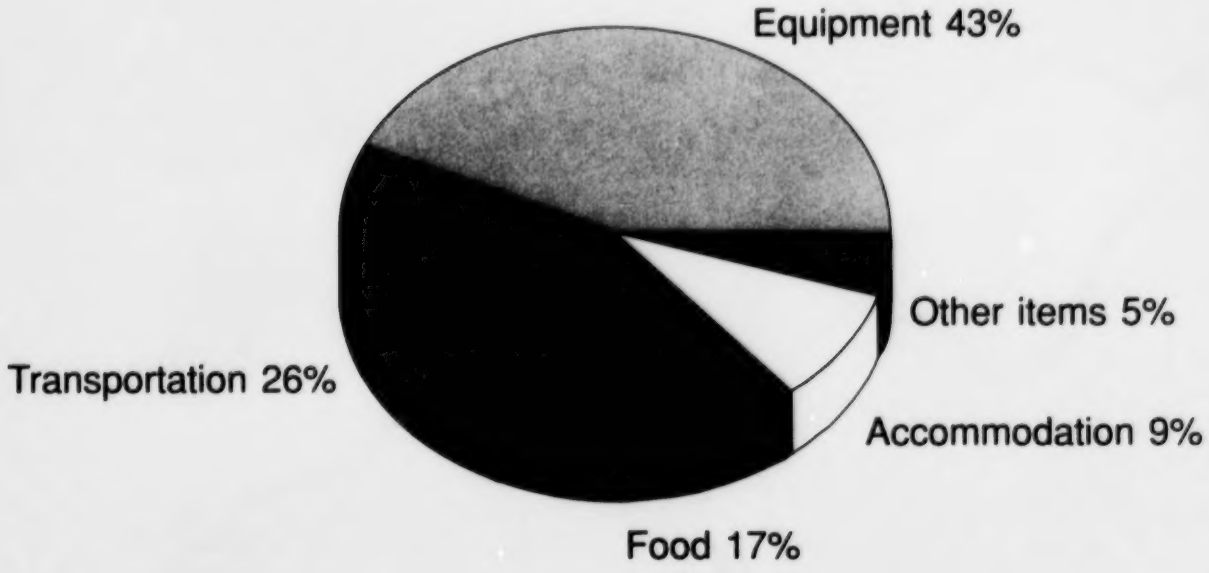
This section reports **annual household expenditures** on **wildlife viewing, fishing** and **hunting** by region. The results are found in **Table 16** and **Table 17**.

- Of these three activities, the **greatest** amount, for the province as a whole, was spent on **wildlife viewing**, followed by fishing and then hunting. This is influenced, once again, by the large **Vancouver** region population.
- Residents in each of the **other** forest regions spent the **most** on **fishing**, followed by hunting and wildlife viewing. (Nelson region is another exception where the order was: hunting, fishing, and wildlife viewing).
- Residents of the **Prince Rupert** forest region spent the **most**, per household, on all three activities.
- Residents of **Vancouver** forest region spent the **least**, per household, on both **hunting** and **fishing**.
- Residents of Kamloops, Prince George, and Nelson spent relatively little on wildlife viewing, in comparison to other forest regions.

Please note: expenditures by recreation category were calculated from the responses of individuals who provided **both expenditures** *as well as* **percentage breakdown** by recreation group (i.e. wildlife viewing, fishing, hunting, and "all other" activities.)

Figure 4: Expenditures by expenditure category

This figure shows the proportion of recreation expenditures by expenditure category for the province as a whole.



4.0 Value of recreation activities in provincial forests

This section reports the **value** of **recreation use** for each recreation activity group in two ways:

1. **total use value**; and,
2. **mean use value per participant**.

The results are found in **Figure 5** and **Table 19**.

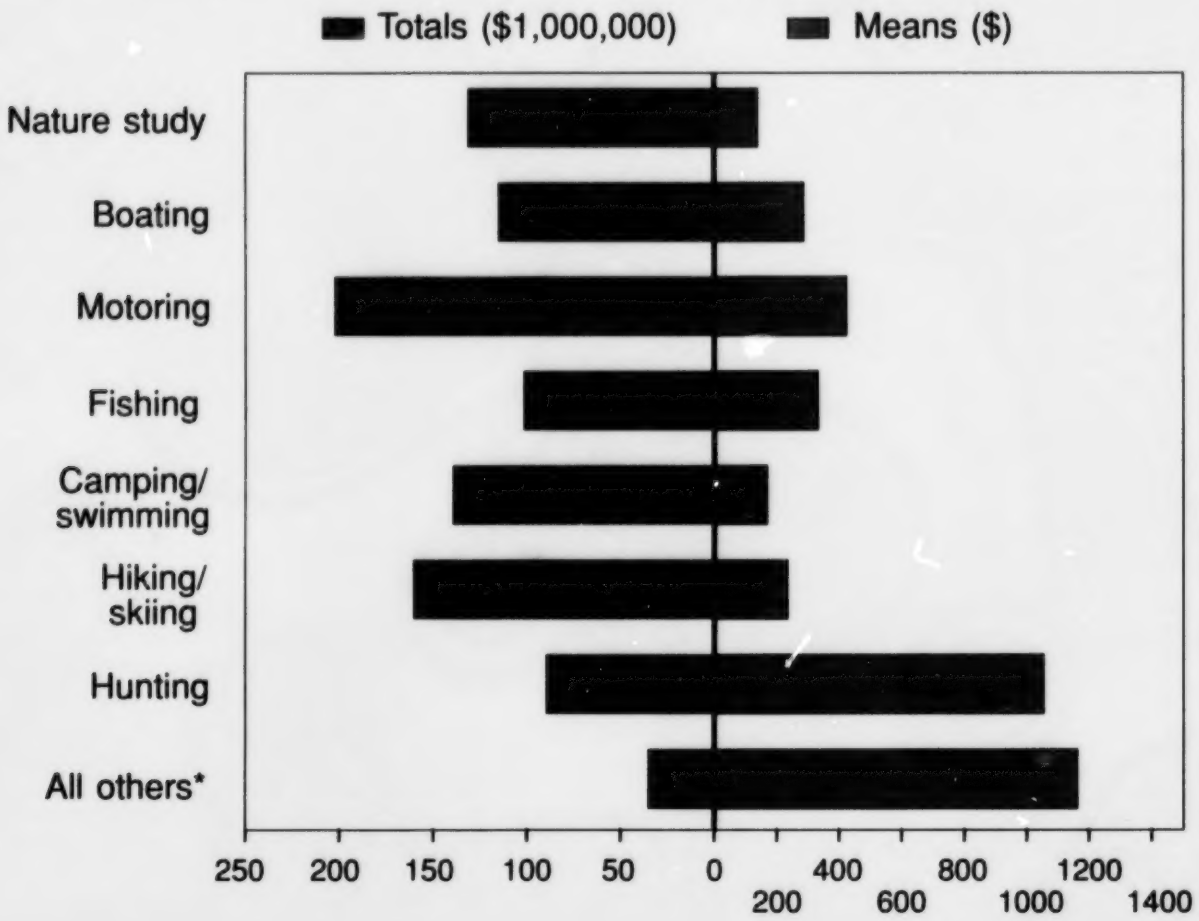
Total use values:

- The **greatest** total annual use value for the province as a whole was for the **motoring** group of activities at **$202,671,000 per year**.
- The **hiking/skiing** activity group was second with a total use value of **$160,406,000 per year**.
- The **camping/swimming** activity group was third with a total use value of **$139,365,00 per year**.
- The **lowest** total use value for the province as a whole was for the **hunting** activity group at **$89,657,000 per year**.

Mean use values per participant:

- **Hunters**, however, would tolerate the **greatest cost increase** in their recreation activity. The cost to each **hunter** in B.C. would, on average, have to **increase** by **$1,054.18 per year** before **participants** would stop hunting.
- The **motoring** activity group was next with a mean use value of **$422.93** per participant and **fishing** followed with a mean use value of **$330.83**.
- Participants in **nature study** activities reported they would tolerate the **least cost increase** at **$139.36**.

Figure 5: Recreation value by activity group
This figure shows mean and total adult recreation activity values for each recreation activity group.[1]



The top three recreation activity groups by use value by region

Vancouver:
- Motoring
- Hiking/Skiing
- Nature study

Kamloops:
- Motoring
- Hiking/Skiing
- Hunting

Nelson:
- Hiking/Skiing
- Motoring
- Hunting

Prince Rupert:
- Hunting
- Fishing
- Motoring

Prince George:
- Hunting
- Motoring
- Fishing

Cariboo:
- Motoring
- Camping /Swimming
- Fishing

5.0 Preservation value of outdoor recreation in provincial forests

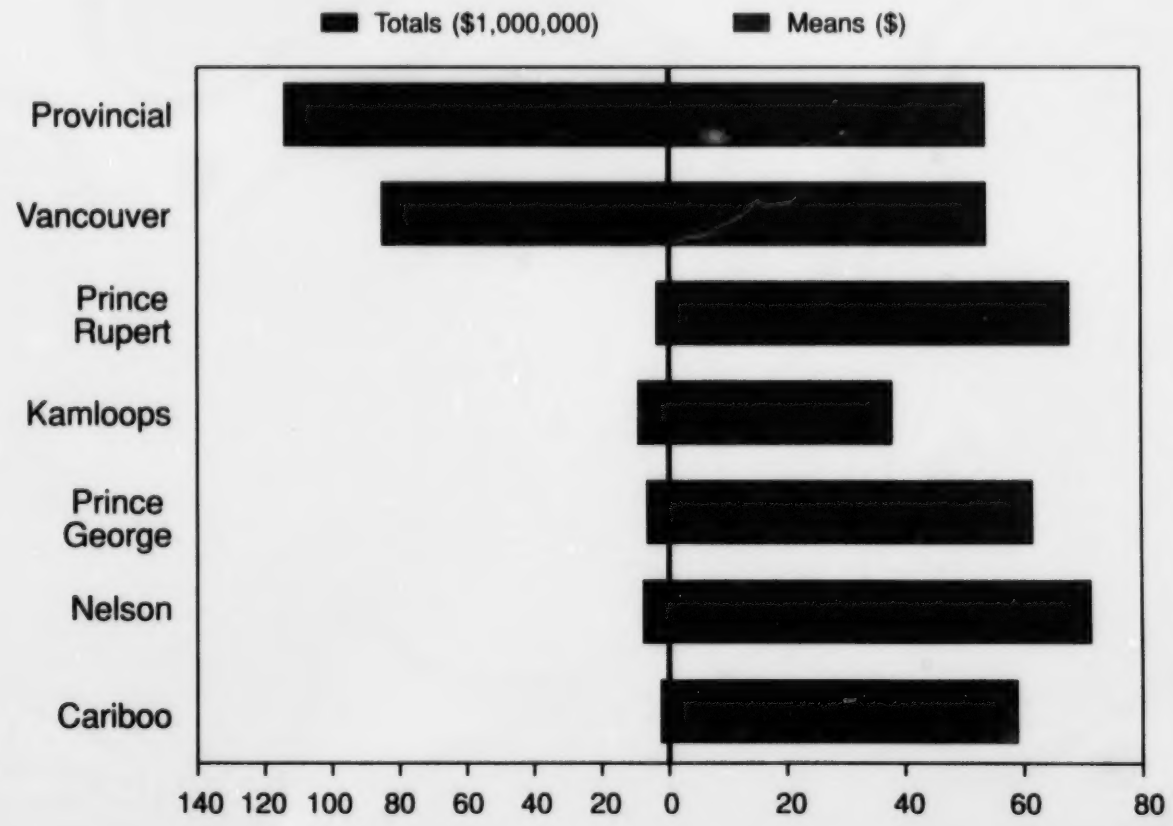
This section reports the **preservation value** of outdoor recreation resources in provincial forests in two ways:
1. **total preservation value**; and,
2. **mean preservation value per resident**.

The results are shown in **Figure 6** and **Table 20**.

Total preservation value:
- The **total preservation value** for the whole province was **$113,986,000 per year**.

Mean preservation value:
- **Each adult** was prepared, on average, to contribute **$53.62 per year** to protect and maintain the recreation resources in B.C.'s provincial forest.
- Adults in the **Nelson** forest region were prepared to contribute the **most**, on average, at **$71.41 per year**.

Figure 6: Annual preservation value of forest recreation for the province and each region
This figure shows mean and total adult preservation values of the forest recreation resource.



- Residents of the **Kamloops** forest region were willing to contribute the **least**, on average, at **$37.74 per year**.
- Residents of the **Vancouver** forest region were prepared to contribute **$53.71** per person, which was low in comparison to other regions besides Kamloops. Because of the relatively **large population**, however, this region was willing to contribute **$85,018,000 per year** towards preservation of recreation opportunities in provincial forests. This is 75 per cent of the total preservation value for B.C. and equal to the relative population distribution for the province.

5.1 Preservation value by activity group opportunities

This section reports **preservation value** for each **activity group** opportunity.

The results are shown in **Table 21** and **Table 22**.

- **Nature study** opportunities were the **most** valued. Adults in B.C. were prepared to contribute, on average, **$39.21 per year**, or **$29,183,000 each year**, in total, toward the preservation of nature study opportunities.
- The preservation value of **hiking/skiing**, **camping/swimming**, and **fishing** opportunities were all relatively **important** to residents of B.C. Individuals placed an average annual value of between **$21.00** and **$27.00** on preserving these types of opportunities.
- The **lowest** preservation value recorded for the province as a whole was for **hunting** opportunities at an average of **$8.80** or **$6,550,000 per year.**
- Residents in the **Nelson** and **Cariboo** forest regions, however, placed the **highest** preservation value on **hunting** opportunities.
- Residents of the **Vancouver** forest region were the **least** prepared to contribute to the preservation of **hunting** opportunities and they also placed the least value on this activity compared to the other opportunities measured.
- Residents of the **Kamloops** region valued **fishing most highly** and were prepared to contribute **$24.60** each, on average, to preserving fishing opportunities.
- Residents in all regions, except the Vancouver forest region, were prepared to contribute the **least** amount for the preservation of **motoring** opportunities (see sidebar on page 13).

Table 22 shows:

Wildlife viewing

- B.C. residents were prepared, on average, to contribute **$31.18 per year** to the preservation of wildlife viewing opportunities.
- Residents of the **Nelson** and **Vancouver** forest regions were prepared to contribute the **most** to the preservation of wildlife viewing opportunities.

Please note: These results were calculated from the responses of individuals who provided preservation values *as well as* percentage breakdowns allotted to the recreation opportunities in each activity group.

5.2 Preservation value by ROS Class

This section reports **preservation value** by Recreation Opportunity Spectrum **class**.

The results are shown in **Table 23**.

- Residents of the province reported **higher preservation values**, in general, for the more **primitive** recreation opportunities on the ROS spectrum. There was little noticeable difference, however, between the preservation value of semi-primitive and roaded recreation opportunities.
- **Primitive** recreation opportunities had the **greatest preservation value** for residents of all regions, with the exception of Prince Rupert, who reported greater value for semi-primitive opportunities, and the Cariboo forest region, who reported greater value for both semi-primitive and roaded resource opportunities.
- Residents of **all** regions give **rural** outdoor recreation areas the **lowest** preservation value.

6.0 Survey methodology and response rates

This survey was carried out using mailback questionnaires. It was conducted in four phases of three month samples corresponding roughly with the seasons. This approach was chosen for increased accuracy as well as to show seasonal variations in use.

Survey methodology

The survey was conducted as follows:

A. Pre-letter

- At the beginning of ***each*** *of the four* time periods pre-letters were mailed to approximately 2,500 randomly selected British Columbia residents, or 10,000 in total.
- The letter introduced the survey and explained, with the use of maps, where provincial forests are located.
- A diary card was included to help respondents keep track of recreation use and expenditures over the next three months.

B. Questionnaire

- At the end of each three month period a questionnaire was sent to respondents.
- A personalized cover letter and postage-paid return envelope was included.
- One week later a personalized reminder and thank you card was sent.
- Three weeks after the reminder cards were mailed, a second questionnaire was mailed if necessary.
- Approximately three weeks later follow-up telephone calls were made to urge respondents to return their questionnaires. These telephone follow-up calls were only made for the first two phases.

Sampling frame

A sample of the entire provincial population was drawn from the B.C. Telephone database. This database contains every household with a telephone, or about 98 per cent of the households in the province. It is updated monthly and is the most accurate household list available.

The sample was drawn from each of the forest regions in the province, representing not only the entire province, but also the populations living within each region. The survey was targeted specifically at the "adult" population of B.C. (i.e. over 18 years).

In the table below we present a population breakdown as well as the proportions of the adult population living in each region (1986 StatsCan data - population 19 years and older). This report projects estimates for the population 19 years and older, for the most part, with the exception of expenditures that are reported by household.

Region	Total Pop.	Adult Pop.	Regional % of adult Pop.
Vancouver	2,102,460	1,583,017	74.5%
Prince Rupert	83,048	53,602	2.5%
Kamloops	328,398	239,572	11.3%
Prince George	161,769	105,411	5.0%
Nelson	148,195	104,840	4.9%
Cariboo	59,495	39,376	1.8%
Total	2,883,365	2,125,818	100%

Also see the map on the following page.

One of the major design considerations confronting this study was the 41/1 divergence between the highest and lowest regional adult populations. A self-representing sample would have required an immense sample size for sufficient accuracy in the smallest regions. (In a self-representing sample the proportion of the sample drawn from each region matches the proportion of the population living in each region.)

For this reason a stratified sample was chosen rather than a self-representing sample; the smaller regions were over-sampled and the large Vancouver region under-sampled. This approach provided a more efficient design and the Vancouver region was still sufficiently represented.

A representative sample of the entire provincial population was recovered through the use of weighting. Since the survey is looking specifically at adults 19 years and over, weighting was applied to this group rather than the population as a whole.

Values imputed for non-respondents

To arrive at accurate provincial totals the values recorded in the tables were calculated as the average of all recorded responses plus a pre-assigned figure for non-respondents. This pre-assigned figure is 50 per cent of the mean number reported by respondents. Murray (1988) found that non-respondents participate in recreational activities approximately half as much as respondents do.

Regional breakdown of adult population by percentage

Recreation survey

Levels of Confidence

The sampling errors below characterize the province-wide and regional samples in this survey.

This indicates that the difference between true population values and the estimates reported in the following pages will be no greater than the indicated figures 19 times in 20 (left-hand column) or 9 times out of 10 (right-hand column). Analyses of subgroups other than the regions, which may contain fewer cases, will have larger sampling errors.

	Sample Size	Levels of Confidence 95%	90%
Total	5,325	1.3	1.1
Vancouver	2,955	1.8	1.5
Prince Rupert	343	5.3	4.5
Kamloops	715	3.7	3.1
Prince George	407	4.9	4.1
Nelson	559	4.1	3.5
Cariboo	346	5.3	4.4

Response rates

The following table displays the response rates achieved in each "wave" and in the total survey.

	Wave A Apr-Jun 1989	**Wave B** Jul-Sep 1989	**Wave C** Oct-Dec 1989	**Wave D** Jan-Mar 1990	**Total Survey** April 89 to March 90
Preletters sent	2,339	2,812	2,544	2,591	10,286
Undeliverable/ refused	246	432	417	455	1,550
Reduced base	2,093	2,380	2,127	2,136	8,736
Completed	1,276	1,530	1,325	1,194	5,325
Response rate	61%	64%	62%	56%	61%

7.0 Appendices

7.1 Guide to using and interpreting the survey results

When comparing the recreation values contained in this report with other resource values, please note:

- The **values** presented in this report are ***averages*** *for* forest regions - not for specific high-quality recreation locations such as wilderness areas, scenic corridors, developed recreation sites or unique features. **Area-specific studies** will still be required to determine preservation and recreation activity values for these areas.
- In this report **recreation activity values** are considered in groups (see the list of groups on page 1). Rather than comparing individual activity values with other resource values, the value of the **entire** activity group must be used.
- To determine **total recreation value** for an activity group, preservation (non-use) values must be added to the activity group (use) values. For example the **total annual value** of **nature study** in provincial forests can be calculated as follows:

	$159,422,000	activity group (use) value
+	$113,986,000	preservation (non-use) value*
=	$273,408,000	total value

* ***Please note:*** *The figure for preservation value is the provincial total preservation value.*

- **Use values** for the various activity groups **cannot be added together** to provide a grand total value for comparison with other resources. Use values overlap from one activity group to another and would be counted more than once if the groups were combined. For instance, a person fishing may also be engaged in nature study at the same time.

The *range* of total activity value, however, *can* be considered. This range falls between the highest individual activity value and the sum of all the activity group values (**$202,671,000 - $975,790,000**).

7.2 Tables of results

The data in the tables that follow represent the adult population of B.C.

To include people under the age of 19 who take part in outdoor recreation along with their parents and friends, the numbers in these sections must be increased by a factor 25 per cent (the percentage of residents under the age of 19).

This factor, however, **cannot** be used to determine the **value** of recreation resources in provincial forests. To do so would be assuming that those under the age of 19 place the same value as adults on outdoor recreation.

Table 1: Recreation use by region

This table shows mean and total adult RUDs for each forest region and the province

Recreation Use	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RUDs)		Totals (1000 RUDs)			
Mean	15.39	13.56	29.04	17.03	17.55	25.99	26.95
Total	32,720	21,457	1,555	4,079	1,848	2,722	1,059
Proportions	100%	66%	5%	12%	6%	8%	3%

Please note:

The values recorded in this table were calculated as the average of all recorded responses plus a pre-assigned number of days for all non-respondents. The value assigned to the non-respondent cases was half the mean number of days reported by the rest of the sample, including those who reported zero days (Murray, 1988).

Please be aware that rounding errors have been corrected to ensure that all subtotals equal overall totals. This applies to all subsequent tables.

Table 2: Recreation use by region and destination

This table shows the destination of people who recreate in provincial forests. Residence and destination are shown by forest region. Adult RUDs are shown as means and totals for each region and the province.

		Residence					
Forest Region	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
Destination		Means (RUDs)		Totals (1000 RUDs)			
Vancouver							
Mean	9.92	13.08	0.60	1.00	0.48	0.76	1.00
Total	17,125	16,727	30	218	49	65	36
Prince Rupert							
Mean	1.12	0.28	31.92	0.28	1.52	0.04	0.12
Total	2,027	416	1,383	79	137	4	9
Kamloops							
Mean	3.28	1.72	0.88	16.44	0.92	1.28	1.12
Total	5,727	2,251	43	3,198	86	109	40
Prince George							
Mean	1.24	0.32	1.72	0.36	17.24	0.32	1.08
Total	2,179	467	79	94	1,471	28	40
Nelson							
Mean	2.04	0.48	0.24	1.80	0.36	29.52	0.36
Total	3,607	671	14	372	39	2,495	16
Cariboo							
Mean	1.12	0.68	0.08	0.48	0.68	0.24	28.76
Total	2,055	925	7	118	66	21	918
Total RUDs	32,720	21,457	1,555	4,079	1,848	2,722	1,059

Please note:

The values recorded in this table have missing data imputed as in table 1.

Table 3: Recreation use by region and recreation activity

This table shows mean and total adult RADs for each forest region and the province for each of 35 recreation activities. Recreation activities are grouped under 8 recreation activity categories.

Recreation Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
NATURE STUDY							
Scenic Viewing							
Mean	6.88	6.76	7.96	6.36	5.68	8.60	11.34
Total	11,774	8,618	347	1,231	485	730	363
Wildlife Viewing							
Mean	3.68	3.04	6.36	4.20	4.08	8.20	9.40
Total	6,298	3,875	275	811	346	693	298
Drawing/Painting Photography							
Mean	1.64	1.60	3.08	1.36	1.04	2.08	2.60
Total	2,806	2,045	137	266	93	179	86
Gathering/ Collecting							
Mean	0.68	0.60	1.20	0.60	0.36	1.36	2.16
Total	1,164	768	55	119	33	118	71
TOTAL RADs	22,042	15,306	814	2,427	957	1,720	818
BOATING							
Motor Cruising							
Mean	1.16	1.04	2.16	1.20	1.08	2.08	1.40
Total	1,985	1,330	97	235	96	179	48
Sailing							
Mean	0.36	0.40	0.16	0.16	0.00	0.56	0.04
Total	616	515	10	35	0	51	5
Windsurfing							
Mean	0.12	0.16	0.00	0.08	0.20	0.00	0.00
Total	205	183	0	10	12	0	0
Canoeing							
Mean	0.60	0.53	0.52	0.76	0.96	1.00	1.68
Total	1,026	657	19	143	77	81	49
Kayaking							
Mean	0.12	0.12	0.08	0.08	0.00	0.00	0.00
Total	204	183	4	17	0	0	0
Rafting							
Mean	0.04	0.04	0.08	0.16	0.12	0.12	0.08
Total	68	36	2	17	6	6	1

Table 3 (Cont.): Recreation use by region and recreation activity

Recreation Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
BOATING cont.							
Water Skiing							
Mean	0.36	0.28	0.92	0.44	0.40	0.36	0.84
Total	616	370	45	91	40	37	33
Other Boating							
Mean	0.88	0.80	0.80	1.08	0.80	0.96	1.28
Total	1,506	1,040	40	220	74	87	45
TOTAL RADs	6,226	4,314	217	768	305	441	181
MOTORING							
Touring							
Mean	3.80	3.72	4.32	3.44	2.84	4.80	8.80
Total	6,503	4,738	185	661	239	403	277
Four-Wheeling							
Mean	0.72	0.44	2.64	0.96	1.40	2.00	2.64
Total	1,232	562	114	185	118	169	84
Trail Biking							
Mean	0.36	0.28	0.36	0.68	0.04	0.80	0.24
Total	616	372	18	141	4	73	8
ATV Use							
Mean	0.24	0.08	0.44	0.20	1.84	0.24	1.44
Total	411	110	22	42	165	23	49
Snowmobiling							
Mean	0.28	0.0	1.28	0.28	1.96	1.36	1.88
Total	479	0	59	57	177	122	64
TOTAL RADs	9,241	5,782	398	1,086	703	790	482
FISHING							
All Types							
Mean	3.84	3.00	13.24	5.60	4.84	5.52	6.16
Total	6,571	3,833	574	1,086	413	468	197
CAMPING/SWIMMING							
Camping							
Mean	3.48	3.00	6.96	3.68	4.92	5.36	6.20
Total	5,955	3,839	308	718	426	460	204
Picnicking							
Mean	1.72	1.52	1.56	2.52	1.68	2.44	2.60
Total	2,943	1,947	69	491	144	209	83

Table 3 (Cont.): Recreation use by region and recreation activity

Recreation Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
CAMPING/SWIMMING cont.							
Swimming							
Mean	1.72	1.56	2.00	1.64	1.64	3.52	3.44
Total	2,943	1,995	86	317	139	297	109
Beach Activities							
Mean	1.68	1.64	2.20	1.60	1.00	2.92	1.92
Total	2,875	2,087	94	306	84	244	60
Skin/Scuba Diving							
Mean	0.08	0.12	0.12	0.04	0.12	0.04	0.20
Total	137	110	4	7	9	2	5
Surfing							
Mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0	0	0	0	0	0	0
TOTAL RADs	14,853	9,978	561	1,839	802	1,212	461
HIKING/SKIING							
Hiking							
Mean	3.84	3.76	5.60	3.76	3.56	4.08	5.88
Total	6,571	4,780	240	722	300	343	186
Mountaineering/ Rock Climbing							
Mean	0.28	0.28	0.52	0.28	0.16	0.24	0.12
Totals	479	361	24	55	14	21	4
Hang Gliding							
Mean	0.0	0.0	0.0	0.0	0.12	0.04	0.0
Total	0	0	0	0	0	0	0
Orienteering							
Mean	0.08	0.08	0.0	0.20	0.0	0.12	0.08
Total	137	92	0	35	0	8	2
Horseback Riding							
Mean	0.36	0.32	0.28	0.28	0.16	0.52	2.36
Total	616	413	12	55	14	45	77
Snowshoeing							
Mean	0.08	0.04	0.32	0.08	0.08	0.36	0.16
Total	137	56	16	18	6	36	5
Downhill/ Cross-Country							
Mean	1.36	0.92	3.52	2.60	1.36	3.88	3.08
Total	2,327	1,156	149	494	112	322	94

Table 3 (Cont.): Recreation use by region and recreation activity

Recreation Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)	Totals (1000 RADs)				
HIKING/SKIING cont.							
Caving							
Mean	0.0	0.0	0.0	0.04	0.0	0.04	0.04
Total	0	0	0	0	0	0	0
Mountain Biking							
Mean	0.72	0.68	0.36	1.36	0.28	0.60	0.60
Total	1,232	862	15	261	24	51	19
Bike Touring							
Mean	0.40	0.36	0.32	0.60	0.08	0.76	0.0
Total	684	475	14	122	6	67	0
TOTAL RADs	12,183	8,195	470	1,762	476	893	387
HUNTING							
All Types							
Mean	1.72	1.00	5.52	1.76	4.84	5.68	6.12
Total	2,943	1,276	239	341	412	480	195
ALL OTHER							
Mean	0.72	0.72	0.24	1.16	0.16	0.96	0.96
Total	1,232	892	9	212	13	76	30
GRAND TOTAL	75,291	49,576	3,282	9,521	4,081	6,080	2,751

Please note:

In this table values have not been imputed for those respondents who did not answer for each activity in the question. In this case, non-response was treated as no partcipation.

Table 4: Recreational activities participated in most

This table shows those activities most often participated in.

Activity	Average number of days per respondent
Scenic viewing	6.88
Fishing	3.84
Hiking	3.84
Touring	3.80
Wildlife viewing	3.68
Camping	3.48
Picnicking	1.72
Hunting	1.72
Swimming	1.72
Beach activities	1.68
Drawing, painting and photography	1.64
Downhill/cross-country skiing	1.36
Motor cruising	1.16

Table 5: Recreation use by region and ROS class

This table shows mean and total adult RADs within Primitive and Semi-primitive (motorized and non-motorized) ROS classes for each forest region and the province.

ROS Class by Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
NATURE STUDY							
Primitive - Days							
Mean	0.76	0.72	0.96	0.84	0.2	0.92	2.48
Total	1,301	908	40	156	43	76	78
A Primitive -Nights							
Mean	0.20	0.20	0.08	0.44	0.28	0.16	0.44
Total	342	220	2	71	23	13	13
Semi-primitive -Days							
Mean	1.76	1.56	2.36	1.96	0.20	1.96	5.76
Total	3,012	2,003	103	382	172	167	185
Semi-primitive -Nights							
Mean	0.36	0.32	0.12	0.64	0.28	0.40	0.36
Total	616	413	5	123	25	35	15
BOATING							
Primitive -Days							
Mean	0.56	0.48	1.00	0.68	0.48	1.04	0.96
Total	958	618	43	134	42	89	32
Primitive -Nights							
Mean	0.24	0.20	0.40	0.20	0.12	0.40	0.44
Total	411	281	19	44	12	39	16
Semi-primitive -Days							
Mean	0.80	0.68	2.48	0.92	1.20	1.08	1.64
Total	1,369	851	105	174	99	89	51
Semi-primitive -Nights							
Mean	0.28	0.24	1.20	0.08	0.56	0.68	0.60
Total	479	297	50	14	45	55	18

Table 5 (Cont.): Recreation use by region and ROS class

ROS Category by Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)	Totals (1000 RADs)				
MOTORING							
Primitive -Days							
Mean	0.40	0.24	1.2	0.44	0.68	1.52	1.68
Total	684	307	52	85	58	129	53
Primitive -Nights							
Mean	0.04	0.04	0.12	0.16	0.00	0.08	0.04
Total	68	36	4	22	0	5	1
Semi-primitive -Days							
Mean	1.08	0.92	1.68	1.12	1.76	1.20	3.72
Total	1,848	1,181	73	220	153	102	119
Semi-primitive -Nights							
Mean	0.28	0.32	0.24	0.12	0.08	0.32	0.48
Total	479	401	10	22	6	26	14
FISHING							
Primitive -Days							
Mean	0.84	0.60	2.60	1.56	1.28	1.40	1.68
Total	1,438	754	110	298	107	117	52
Primitive -Nights							
Mean	0.28	0.24	0.56	0.48	0.48	0.64	0.64
Total	479	267	21	87	37	50	17
Semi-primitive -Days							
Mean	1.44	1.08	4.80	2.68	1.64	1.60	2.36
Total	2,464	1,385	208	519	140	137	75
Semi-primitive -Nights							
Mean	0.44	0.36	0.64	0.44	0.80	0.80	1.08
Total	753	462	28	87	70	70	36

Table 5 (Cont.): Recreation use by region and ROS class

ROS Category by Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)	Totals (1000 RADs)				
CAMPING/SWIMMING							
Primitive -Days							
Mean	0.76	0.68	1.20	0.84	0.96	1.44	1.12
Total	1,301	856	51	160	80	120	34
Primitive -Nights							
Mean	0.48	0.48	0.84	0.64	0.36	0.24	0.56
Total	821	601	35	119	30	19	17
Semi-primitive -Days							
Mean	1.40	1.32	3.36	1.00	1.20	2.16	1.88
Total	2,396	1,696	149	198	104	187	62
Semi-primitive -Nights							
Mean	0.84	0.76	1.80	0.84	0.88	1.56	1.12
Total	1,438	963	76	160	74	131	34
HIKING/SKIING							
Primitive -Days							
Mean	0.80	0.76	2.16	0.76	0.40	1.44	1.16
Total	1,369	950	90	141	33	119	36
Primitive -Nights							
Mean	0.20	0.16	0.40	0.36	0.24	0.36	0.12
Total	342	201	17	69	20	31	4
Semi-primitive -Days							
Mean	1.88	1.64	2.80	2.80	1.32	3.60	2.44
Total	3,218	2,078	119	535	110	300	76
Semi-primitive -Nights							
Mean	0.24	0.24	0.08	0.16	0.28	0.28	0.32
Total	411	316	3	32	25	24	11

Table 5 (Cont.): Recreation use by region and ROS class

ROS Category by Activity	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
HUNTING							
Primitive -Days							
Mean	0.56	0.28	2.12	0.84	1.68	2.08	1.64
Total	958	347	90	159	139	172	51
Primitive -Nights							
Mean	0.24	0.16	0.96	0.28	0.16	1.08	0.44
Total	411	200	40	53	14	89	15
Semi-primitive -Days							
Mean	0.88	0.56	2.20	0.56	3.32	2.56	2.72
Total	1,506	716	95	109	283	217	86
Semi-primitive -Nights							
Mean	0.24	0.16	0.56	0.24	0.64	1.04	0.04
Total	411	200	24	45	53	87	2
ALL OTHER							
Primitive -Days							
Mean	0.24	0.20	0.28	0.24	0.08	0.72	1.00
Total	411	256	12	46	6	60	31
Primitive -Nights							
Mean	0.12	0.12	0.00	0.04	0.08	0.20	0.48
Total	205	157	0	8	6	18	16
Semi-primitive -Days							
Mean	0.56	0.36	1.76	1.08	0.92	1.08	1.12
Total	958	464	77	211	79	92	35
Semi-primitive -Nights							
Mean	0.08	0.08	0.08	0.12	0.40	0.20	0.00
Total	137	79	2	17	26	13	0

Please note:
In this table values have not been imputed for those respondents who did not answer because of the relatively large number of missing data.

Table 6 : ROS category use

This table shows the recreation use of Unroaded (Primitive and semi-primitive) and Roaded ROS classes.

Activity Group	ROS Class			
		Unroaded		Roaded*
	Total	Primitive	Semi-primitive	Roaded and Rural
		Means (RADs)	Totals (*1000 RADs)	
Nature study				
Mean	12.88	0.76	1.76	
Total	22,042	1,301	3,012	17,729
	(100%)	(6%)	(14%)	(80%)
Camping/Swimming				
Mean	8.68	0.76	1.40	
Total	14,853	1,301	2,396	11,156
	(100%)	(9%)	(16%)	(75%)
Hiking/Skiing				
Mean	7.12	0.80	1.88	
Total	12,183	1,369	3,218	7,596
	(100%)	(11%)	(26%)	(63%)
Motoring				
Mean	5.40	0.40	1.08	
Total	9,241	684	1,848	6,709
	(100%)	(7%)	(20%)	(73%)
Fishing				
Mean	3.84	0.84	1.44	
Total	6,571	1,438	2,464	2,669
	(100%)	(22%)	(37%)	(41%)
Boating				
Mean	3.64	0.56	0.80	
Total	6,227	958	1,369	3,900
	(100%)	(15%)	(22%)	(63%)
Hunting				
Mean	1.72	0.56	0.88	
Total	2,943	958	1,506	479
	(100%)	(33%)	(51%)	(16%)
All other				
Mean	0.72	0.24	0.56	
Total	1,232	370	862	0
	(100%)	(30%)	(70%)	(0%)
Grand total	75291	8397	16675	50,237
	(100%)	(11%)	(22%)	(67%)

* Derived by subtracting Unroaded from the total.

Table 7: Recreation use by season

This table shows total adult RUDs for Spring, Summer, Fall and Winter seasons and the year.

Recreation Use	Season				
	Spring	Summer	Fall	Winter	Total for the year
	Totals (1000 RUDs)				
Total sample (weighted)	1,327	1,330	1,331	1,331	5319
Total RUDs	8,693	10,422	8,060	5,545	32,720
% of RUDs	26.6%	31.9%	24.6%	16.9%	100%

Please note:

The values recorded in this table have missing data imputed as in table 1.

Table 8: Activity recorded by season

This table shows the percentage of respondents who participated in some outdoor recreation in provincial forests in each season.

	Season			
Participation	Spring	Summer	Fall	Winter
Total Sample (weighted)	1,327	1,330	1,331	1,331
Zero/no days participating	733	742	800	886
% participating	45%	44%	40%	33%

Table 9: Recreation use by region, recreation activity and season

This table shows mean and total adult RADs for each recreation activity by season, for each forest region and the province.

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
NATURE STUDY								
Scenic Viewing								
Spring:	Mean	2.10	2.09	1.87	2.71	1.21	1.83	2.59
	Total	3,602	2,656	81	523	103	156	83
Summer:	Mean	2.29	2.40	2.99	1.27	1.81	2.94	2.46
	Total	3,983	3,110	133	251	156	253	80
Fall:	Mean	1.57	1.42	2.20	1.45	2.08	2.00	4.60
	Total	2,684	1,811	96	282	176	171	148
Winter:	Mean	0.91	0.85	0.89	0.93	0.61	1.82	1.71
	Total	1,505	1,041	37	175	50	150	52
TOTAL RADs		11,774	8,618	347	1,231	485	730	363
Wildlife Viewing								
Spring:	Mean	1.15	1.00	1.58	1.87	0.76	1.56	1.78
	Total	1,944	1,261	68	363	64	132	56
Summer:	Mean	1.03	0.96	2.14	0.53	0.73	3.02	1.17
	Total	1,793	1,235	94	104	63	259	38
Fall:	Mean	1.02	0.74	2.15	0.92	2.22	2.18	5.08
	Total	1,744	940	93	178	185	185	163
Winter:	Mean	0.50	0.36	0.47	0.89	0.41	1.43	1.35
	Total	817	439	20	166	34	117	41
TOTAL RADs		6,298	3,875	275	811	346	693	298
Drawing/Painting Photography								
Spring:	Mean	0.46	0.48	0.55	0.47	0.24	0.33	0.61
	Total	787	604	24	92	20	28	19
Summer:	Mean	0.61	0.58	1.59	0.49	0.54	0.79	0.72
	Total	1,059	746	71	98	49	71	24
Fall:	Mean	0.38	0.37	0.83	0.18	0.17	0.65	1.13
	Total	650	467	37	35	15	57	39
Winter:	Mean	0.19	0.19	0.11	0.22	0.11	0.28	0.13
	Total	310	228	5	41	9	23	4
TOTAL RADs		2,806	2,045	137	266	93	179	86

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
NATURE STUDY cont.								
Gathering/Collecting								
Spring:	Mean	0.18	0.15	0.40	0.27	0.13	0.11	0.67
	Total	310	195	18	53	12	11	21
Summer:	Mean	0.23	0.23	0.46	0.17	0.18	0.30	0.28
	Total	411	303	22	34	17	26	9
Fall:	Mean	0.18	0.15	0.32	0.12	0.02	0.56	1.08
	Total	322	196	15	23	2	50	36
Winter:	Mean	0.08	0.06	0.00	0.05	0.02	0.37	0.14
	Total	121	74	0	9	2	31	5
TOTAL RADs		1,164	768	55	119	33	118	71
BOATING								
Motor Cruising								
Spring:	Mean	0.34	0.26	1.00	0.42	0.66	0.69	0.54
	Total	582	322	44	82	58	58	18
Summer:	Mean	0.54	0.52	0.76	0.49	0.38	0.87	0.73
	Total	934	666	35	98	34	76	25
Fall:	Mean	0.22	0.23	0.36	0.09	0.05	0.45	0.15
	Total	365	284	16	18	4	38	5
Winter:	Mean	0.06	0.05	0.04	0.20	0.00	0.09	0.00
	Total	104	58	2	37	0	7	0
TOTAL RADs		1,985	1,330	97	235	96	179	48
Sailing								
Spring:	Mean	0.11	0.12	0.00	0.08	0.00	0.21	0.00
	Total	216	161	0	17	0	38	0
Summer:	Mean	0.19	0.24	0.05	0.08	0.00	0.02	0.04
	Total	351	320	3	18	0	5	5
Fall:	Mean	0.02	0.02	0.09	0.00	0.00	0.05	0.00
	Total	49	34	7	0	0	8	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		616	515	10	35	0	51	5

Table 9 (cont): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
BOATING cont.								
Windsurfing								
Spring:	Mean	0.05	0.06	0.00	0.04	0.02	0.00	0.00
	Total	76	68	0	6	2	0	0
Summer:	Mean	0.09	0.10	0.00	0.03	0.18	0.00	0.00
	Total	129	115	0	4	10	0	0
Fall:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		205	183	0	10	12	0	0
Canoeing								
Spring:	Mean	0.18	0.12	0.38	0.46	0.54	0.06	0.22
	Total	319	163	13	86	45	5	7
Summer:	Mean	0.23	0.19	0.09	0.24	0.27	0.59	0.45
	Total	393	257	4	47	23	48	14
Fall:	Mean	0.07	0.04	0.05	0.04	0.08	0.17	1.02
	Total	113	54	2	8	6	15	28
Winter:	Mean	0.12	0.14	0.00	0.01	0.04	0.16	0.00
	Total	201	183	0	2	3	13	0
TOTAL RADs		1,026	657	19	143	77	81	49
Kayaking								
Spring:	Mean	0.04	0.04	0.09	0.05	0.00	0.00	0.00
	Total	71	55	4	12	0	0	0
Summer:	Mean	0.05	0.06	0.00	0.02	0.00	0.00	0.02
	Total	91	86	0	5	0	0	0
Fall:	Mean	0.01	0.02	0.00	0.00	0.00	0.01	0.00
	Total	30	30	0	0	0	0	0
Winter:	Mean	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total	12	12	0	0	0	0	0
TOTAL RADs		204	183	4	17	0	0	0

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
BOATING cont.								
Rafting								
Spring:	Mean	0.03	0.01	0.00	0.14	0.00	0.06	0.06
	Total	32	12	0	15	0	4	1
Summer:	Mean	0.02	0.02	0.06	0.02	0.00	0.06	0.03
	Total	30	24	2	2	0	2	0
Fall:	Mean	0.01	0.00	0.00	0.00	0.12	0.00	0.00
	Total	6	0	0	0	6	0	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		68	36	2	17	6	6	1
Water/Skiing								
Spring:	Mean	0.12	0.09	0.58	0.19	0.14	0.16	0.34
	Total	223	114	27	39	14	16	13
Summer:	Mean	0.19	0.17	0.36	0.24	0.19	0.18	0.51
	Total	342	218	18	50	18	18	20
Fall:	Mean	0.02	0.02	0.00	0.01	0.08	0.01	0.00
	Total	39	26	0	2	8	3	0
Winter:	Mean	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total	12	12	0	0	0	0	0
TOTAL RADs		616	370	45	91	40	37	33
OTHER BOATING ACTIVITIES								
Spring:	Mean	0.39	0.38	0.09	0.64	0.20	0.49	0.22
	Total	686	485	5	127	18	44	7
Summer:	Mean	0.29	0.26	0.45	0.33	0.55	0.18	0.60
	Total	520	338	23	67	52	18	20
Fall:	Mean	0.15	0.16	0.16	0.05	0.03	0.19	0.47
	Total	259	205	8	10	2	18	15
Winter:	Mean	1.03	0.01	0.08	0.08	0.03	0.09	0.00
	Total	41	12	4	16	2	7	0
TOTAL RADs		1,506	1,040	40	220	74	87	45

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
MOTORING								
Touring								
Spring:	Mean	1.07	0.96	1.10	1.72	0.76	1.01	2.82
	Total	1,826	1,213	47	329	64	84	89
Summer:	Mean	1.36	1.43	1.40	0.87	1.00	2.09	0.85
	Total	2,372	1,848	62	169	87	179	27
Fall:	Mean	0.78	0.73	1.43	0.59	0.50	0.81	3.87
	Total	1,337	929	61	113	43	68	123
Winter:	Mean	0.59	0.61	0.36	0.27	0.55	0.89	1.25
	Total	968	748	15	50	45	72	38
TOTAL RADs		6,503	4,738	185	661	239	403	277
Four Wheeling								
Spring:	Mean	0.12	0.05	0.56	0.14	0.24	0.26	1.20
	Total	194	64	24	27	20	22	37
Summer:	Mean	0.26	0.16	1.21	0.27	0.62	0.68	0.47
	Total	436	203	53	53	52	59	16
Fall:	Mean	0.23	0.15	0.57	0.18	0.52	0.78	0.81
	Total	385	187	25	35	44	68	26
Winter:	Mean	0.13	0.09	0.28	0.39	0.03	0.25	0.14
	Total	217	108	12	70	2	20	5
TOTAL RADs		1,232	562	114	185	118	169	84
Trail Biking								
Spring:	Mean	0.12	0.04	0.11	0.55	0.05	0.43	0.11
	Total	213	51	5	110	4	39	4
Summer:	Mean	0.12	0.14	0.12	0.06	0.00	0.20	0.10
	Total	222	183	6	12	0	18	3
Fall:	Mean	0.05	0.04	0.11	0.04	0.00	0.14	0.00
	Total	79	51	6	9	0	13	0
Winter:	Mean	0.06	0.07	0.01	0.05	0.00	0.02	0.02
	Total	102	87	1	10	0	3	1
TOTAL RADs		616	372	18	141	4	73	8

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
MOTORING (cont.)								
ATV Use								
Spring:	Mean	0.06	0.04	0.00	0.01	0.35	0.13	0.04
	Total	97	48	0	2	32	13	2
Summer:	Mean	0.04	0.02	0.00	0.07	0.28	0.01	0.26
	Total	78	25	0	17	27	1	8
Fall:	Mean	0.12	0.03	0.34	0.09	1.18	0.10	1.00
	Total	222	37	17	21	103	9	35
Winter:	Mean	0.10	0.00	0.11	0.01	0.04	0.00	0.13
	Total	14	0	5	2	3	0	4
TOTAL RADs		411	110	22	42	165	23	49
Snowmobiling								
Spring:	Mean	0.01	0.00	0.00	0.00	0.16	0.02	0.00
	Total	18	0	0	0	15	3	0
Summer:	Mean	0.01	0.00	0.00	0.03	0.02	0.00	0.09
	Total	11	0	0	6	2	0	3
Fall:	Mean	0.12	0.01	1.03	0.07	1.02	0.31	0.81
	Total	214	0	49	14	94	29	28
Winter:	Mean	0.13	0.00	0.25	0.18	0.76	1.01	0.98
	Total	236	0	10	37	66	90	33
TOTAL RADs		479	0	59	57	177	122	64
FISHING								
All Types								
Spring:	Mean	1.25	0.90	5.48	2.26	1.49	1.50	2.02
	Total	2,128	1,140	237	434	126	127	64
Summer:	Mean	1.42	1.14	4.69	1.91	2.25	1.71	2.16
	Total	2,470	1,474	206	376	196	148	70
Fall:	Mean	0.80	0.73	1.69	0.88	0.50	1.28	1.57
	Total	1,382	935	74	171	43	109	50
Winter:	Mean	0.36	0.23	1.37	0.56	0.58	1.03	0.42
	Total	591	284	57	105	48	84	13
TOTAL RADs		6,571	3,833	574	1,086	413	468	197

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
CAMPING/SWIMMING								
Camping								
Spring:	Mean	1.22	1.04	2.52	1.57	1.90	1.37	1.96
	Total	2,067	1,310	111	305	161	118	62
Summer:	Mean	1.44	1.26	3.20	1.47	2.38	1.70	3.28
	Total	2,523	1,622	143	291	209	148	110
Fall:	Mean	0.58	0.52	1.14	0.51	0.60	1.25	0.72
	Total	990	660	49	99	51	108	23
Winter:	Mean	0.22	0.20	0.13	0.12	0.06	1.05	0.28
	Total	375	247	5	23	5	86	9
TOTAL RADs		5,955	3,839	308	718	426	460	204
Picnicking								
Spring:	Mean	0.66	0.54	0.44	1.46	0.73	0.63	0.95
	Total	1,142	693	19	285	62	53	30
Summer:	Mean	0.68	0.61	0.63	0.75	0.80	1.23	1.24
	Total	1,191	799	28	148	69	107	40
Fall:	Mean	0.19	0.17	0.44	0.22	0.12	0.28	0.38
	Total	327	219	19	43	11	23	12
Winter:	Mean	0.17	0.19	0.07	0.08	0.02	0.31	0.03
	Total	283	236	3	15	2	26	1
TOTAL RADs		2,943	1,947	69	491	144	209	83
Swimming								
Spring:	Mean	0.58	0.54	0.60	0.53	0.73	0.91	1.23
	Total	991	687	26	102	61	76	39
Summer:	Mean	1.00	0.91	1.27	0.91	0.82	2.28	1.41
	Total	1,714	1,170	56	177	69	195	47
Fall:	Mean	0.08	0.04	0.06	0.10	0.10	0.23	0.73
	Total	123	51	2	19	9	19	23
Winter:	Mean	0.07	0.07	0.05	0.10	0.00	0.09	0.00
	Total	115	87	2	19	0	7	0
TOTAL RADs		2,943	1,995	86	317	139	297	109

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
CAMPING/SWIMMING cont.								
Beach Activities								
Spring:	Mean	0.58	0.49	0.77	0.87	0.45	1.20	0.75
	Total	967	618	33	164	38	99	15
Summer:	Mean	0.84	0.83	1.09	0.62	0.53	1.41	1.18
	Total	1,417	1,062	46	122	44	118	25
Fall:	Mean	0.13	0.14	0.23	0.09	0.03	0.23	0.00
	Total	229	180	10	18	2	19	0
Winter:	Mean	0.15	0.19	0.12	0.01	0.00	0.10	1.01
	Total	262	227	5	2	0	8	20
TOTAL RADs		2,875	2,087	94	306	84	244	60
Skin/Scuba Diving								
Spring:	Mean	0.03	0.03	0.02	0.01	0.00	0.00	0.17
	Total	39	33	1	1	0	0	4
Summer:	Mean	0.03	0.04	0.05	0.01	0.04	0.02	0.03
	Total	52	45	1	2	2	1	1
Fall:	Mean	0.02	0.02	0.00	0.00	0.10	0.00	0.00
	Total	29	22	0	0	7	0	0
Winter:	Mean	0.01	0.01	0.04	0.02	0.00	0.02	0.00
	Total	17	10	2	4	0	1	0
TOTAL RADs		137	110	4	7	9	2	5
Surfing								
Spring:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Summer:	Mean	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Fall:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		0	0	0	0	0	0	0

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
HIKING/SKIING								
Hiking								
Spring:	Mean	1.14	1.13	1.15	1.65	0.94	0.47	1.10
	Total	1,942	1,425	50	314	79	39	35
Summer:	Mean	1.10	1.09	3.27	0.72	0.90	1.34	0.79
	Total	1,902	1,401	140	142	78	116	25
Fall:	Mean	1.00	0.95	0.82	0.63	1.55	1.25	3.58
	Total	1,710	1,202	36	122	130	106	114
Winter:	Mean	0.62	0.61	0.34	0.77	0.16	1.00	0.40
	Total	1,017	752	14	144	13	82	12
TOTAL RADs		6,571	4,780	240	722	300	343	186
Mountaineering/Rock climbing								
Spring:	Mean	0.09	0.08	0.36	0.11	0.00	0.05	0.00
	Total	125	81	17	22	0	5	0
Summer:	Mean	0.07	0.08	0.05	0.03	0.06	0.05	0.01
	Total	102	82	2	6	6	5	1
Fall:	Mean	0.07	0.07	0.11	0.03	0.08	0.13	0.04
	Total	182	150	5	6	8	11	2
Winter:	Mean	0.05	0.05	0.00	0.11	0.00	0.00	0.08
	Total	70	48	0	21	0	0	1
TOTAL RADs		479	361	24	55	14	21	4
Hang Gliding								
Spring:	Mean	0.01	0.00	0.00	0.00	0.13	0.00	0.00
	Total	0	0	0	0	0	0	0
Summer:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Fall:	Mean	0.00	0.00	0.00	0.00	0.00	0.04	0.00
	Total	0	0	0	0	0	0	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		0	0	0	0	0	0	0

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means (RADs)		Totals (1000 RADs)			
HIKING/SKIING cont.							
Orienteering							
Spring: Mean	0.01	0.01	0.00	0.05	0.01	0.00	0.00
Total	24	16	0	8	0	0	0
Summer: Mean	0.02	0.00	0.00	0.16	0.00	0.00	0.04
Total	28	0	0	27	0	0	1
Fall: Mean	0.02	0.02	0.00	0.00	0.00	0.12	0.00
Total	39	31	0	0	0	8	0
Winter: Mean	0.02	0.03	0.00	0.00	0.00	0.00	0.04
Total	46	45	0	0	0	0	1
TOTAL RADs	137	92	0	35	0	8	2
Horseback Riding							
Spring: Mean	0.11	0.12	0.02	0.03	0.02	0.11	0.23
Total	187	161	1	6	2	10	7
Summer: Mean	0.08	0.07	0.08	0.03	0.10	0.11	0.29
Total	128	91	3	6	8	11	9
Fall: Mean	0.15	0.10	0.18	0.22	0.05	0.12	1.77
Total	261	136	8	43	4	11	59
Winter: Mean	0.02	0.02	0.00	0.00	0.00	0.18	0.07
Total	40	25	0	0	0	13	2
TOTAL RADs	616	413	12	55	14	45	77
Snowshoeing							
Spring: Mean	0.01	0.00	0.02	0.02	0.00	0.00	0.14
Total	12	0	1	6	0	0	5
Summer: Mean	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Total	2	0	0	0	2	0	0
Fall: Mean	0.02	0.01	0.17	0.00	0.02	0.03	0.00
Total	34	20	9	0	2	3	0
Winter: Mean	0.04	0.02	0.13	0.04	0.04	0.34	0.00
Total	89	36	6	12	2	33	0
TOTAL RADs	137	56	16	18	6	36	5

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
HIKING/SKIING cont.								
Downhill/Cross-Country Skiing								
Spring:	Mean	0.13	0.12	0.68	0.03	0.07	0.33	0.12
	Total	226	153	29	6	6	28	4
Summer:	Mean	0.12	0.10	0.94	0.06	0.03	0.38	0.17
	Total	223	130	41	11	2	33	6
Fall:	Mean	0.32	0.21	0.83	0.57	0.43	0.89	0.83
	Total	558	273	36	111	36	75	27
Winter:	Mean	0.79	0.48	1.08	1.93	0.84	2.28	1.96
	Total	1,320	600	43	366	68	186	57
TOTAL RADs		2,327	1,156	149	494	112	322	94
Caving								
Spring:	Mean	0.00	0.00	0.00	0.02	0.00	0.00	0.00
	Total	0	0	0	0	0	0	0
Summer:	Mean	0.01	0.01	0.00	0.01	0.00	0.01	0.00
	Total	0	0	0	0	0	0	0
Fall:	Mean	0.01	0.01	0.00	0.00	0.00	0.01	0.04
	Total	0	0	0	0	0	0	0
Winter:	Mean	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	Total	0	0	0	0	0	0	0
TOTAL RADs		0	0	0	0	0	0	0
Mountain Biking								
Spring:	Mean	0.28	0.27	0.06	0.61	0.02	0.17	0.10
	Total	475	334	2	118	2	15	4
Summer:	Mean	0.28	0.24	0.06	0.69	0.18	0.15	0.49
	Total	478	303	2	130	14	14	15
Fall:	Mean	0.06	0.05	0.20	0.04	0.07	0.15	0.00
	Total	101	64	10	8	6	13	0
Winter:	Mean	0.11	0.13	0.02	0.03	0.03	0.11	0.03
	Total	178	161	1	5	2	9	0
TOTAL RADs		1,232	862	15	261	24	51	19

Table 9 (Cont.): Recreation use by region, recreation activity and season

Activity by Season		Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
			Means (RADs)		Totals (1000 RADs)			
HIKING/SKIING cont.								
Bike Touring								
Spring:	Mean	0.14	0.09	0.00	0.45	0.08	0.34	0.00
	Total	241	115	0	91	6	29	0
Summer:	Mean	0.17	0.18	0.31	0.12	0.00	0.38	0.01
	Total	308	235	14	26	0	33	0
Fall:	Mean	0.02	0.03	0.02	0.00	0.00	0.00	0.00
	Total	38	38	0	0	0	0	0
Winter:	Mean	0.06	0.07	0.00	0.03	0.00	0.04	0.01
	Total	97	87	0	5	0	5	0
TOTAL RADs		684	475	14	122	6	67	0
HUNTING								
All Types								
Spring:	Mean	0.08	0.02	0.87	0.11	0.06	0.43	0.08
	Total	128	26	38	21	5	36	2
Summer:	Mean	0.34	0.17	0.72	0.53	1.25	1.21	0.84
	Total	595	221	31	104	108	104	27
Fall:	Mean	1.24	0.79	3.75	1.05	3.52	3.58	5.15
	Total	2,125	992	162	207	296	303	165
Winter:	Mean	0.06	0.03	0.19	0.05	0.04	0.46	0.03
	Total	95	37	8	9	3	37	1
TOTAL RADs		2,943	1,276	239	341	412	480	195
ALL OTHER								
Spring:	Mean	0.24	0.28	0.06	0.01	0.17	0.26	0.61
	Total	409	351	2	2	13	22	19
Summer:	Mean	0.11	0.13	0.05	0.02	0.00	0.09	0.25
	Total	190	169	2	4	0	7	8
Fall:	Mean	0.10	0.04	0.08	0.43	0.00	0.38	0.09
	Total	169	51	3	83	0	29	3
Winter:	Mean	0.28	0.26	0.06	0.70	0.00	0.22	0.00
	Total	464	321	2	123	0	18	0
TOTAL RADs		1,232	892	9	212	13	76	30
GRAND TOTAL RADs		75,291	49,576	3,282	9,521	4,081	6,080	2,751

Please note:

In this table values have not been imputed for those respondents that did not answer because of the relatively large number of missing data.

Table 10: Annual recreation expenditure by region

This table shows mean and total annual household expenditures on recreation for each forest region and the province.

Total Expenditure	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)	Totals ($1000)				
Mean	1,436.56	1,335.00	2,965.76	1,294.80	1,713.28	2,003.64	2,049.40
Total	1,561,703	1,080,740	81,292	158,634	92,355	107,417	41,265

Please note:
The values recorded in this table have missing data inputed as in Table 1.

Table 11. Proportional breakdown of expenditure by region

This table shows proportion of mean per capita and total annual expenditures for each forest region.

	Mean per capita expenditure as a ratio of the province-wide mean	Total annual expenditure %
Vancouver	.93	69
Prince Rupert	2.06	5
Kamloops	.91	10
Prince George	1.19	6
Nelson	1.39	7
Cariboo	1.43	3
		100%

Table 12: Daily recreation expenditure by region

This table shows mean and total daily household expenditures on recreation for each forest region and the province.

Daily Expenditure	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)	Totals ($1000)				
Mean	43.92	45.42	52.15	35.02	46.18	35.88	41.76
Total	47,747	36,772	1,430	4,291	2,489	1,924	841

Please note:
The values recorded in this table have missing data imputed as in Table 1.

Table 13. Proportional breakdown of regional daily expenditure

This table shows the proportion of mean per capita and total daily expenditures for each forest region.

	Mean per capita expenditure as a ratio of the province-wide mean	Total daily expenditure
		%
Vancouver	1.03	77
Prince Rupert	1.19	3
Kamloops	.80	9
Prince George	1.06	5
Nelson	.82	4
Cariboo	.95	2
		100%

Table 14: Annual recreation expenditure by region and recreation expenditure category

This table shows mean and total annual household expenditures on recreation by recreation expense category for each forest region and the province.

Expenditure Category	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Transportation							
Mean	368.48	331.40	795.24	385.92	449.84	518.40	554.24
Total	401,200	268,287	21,510	46,953	26,036	27,501	10,913
Accommodation							
Mean	128.40	136.20	152.32	107.80	88.40	97.44	98.28
Total	139,468	110,241	4,175	13,202	4,647	5,224	1,979
Food							
Mean	246.04	232.36	512.92	223.32	292.36	298.40	307.68
Total	267,165	188,099	14,060	27,360	15,450	15,999	6,197
Equipment							
Mean	619.04	561.60	1,367.68	514.12	819.56	1,002.32	989.40
Total	671,724	454,645	37,491	62,987	42,938	53,739	19,924
Other Items							
Mean	74.60	73.44	137.60	63.64	63.12	87.08	99.80
Total	82,146	59,468	4,056	8,132	3,284	4,954	2,252
OVERALL MEAN	1,436.56	1,335.00	2,965.76	1,294.80	1,713.28	2,003.64	2,049.40
TOTAL EXPEND.	1,561,703	1,080,740	81,292	158,634	92,355	107,417	41,265

Please note:

The values recorded in this table have missing data imputed as in Table 1.

Table 15: Total province and regional expenditure allocation

This table shows the proportion of expenditures by expenditure category for each forest region and the province.

	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
	%	%	%	%	%	%	%
Equipment	43	42	46	40	46	50	48
Transportation	26	25	27	30	28	26	27
Food	17	17	17	17	17	15	15
Accommodation	9	10	5	8	5	5	5
Other items	5	6	5	5	5	5	5
	100	100	100	100	100	100	100

Table 16: Annual recreation expenditure on wildlife viewing, fishing and hunting by region

This table shows mean and total expenditures on wildlife viewing, fishing and hunting for each forest region and the province.

Expenditure by Recreation Category	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Wildlife Viewing							
Mean	759.84	821.04	1,075.06	433.86	451.74	670.73	1,033.12
Total	315,080,	243,898	14,968	20,696	10,111	16,133	9,274
Fishing							
Mean	668.70	540.53	1,447.88	888.31	1,140.66	744.66	996.82
Total	277,287	158,485	21,026	43,099	26,354	18,651	9,672
Hunting							
Mean	390.41	242.12	1,240.06	411.86	767.67	1,008.25	940.81
Total	161,890	72,366	17,887	20,102	17,743	24,834	8,958
All Other Outdoor Activity							
Mean	1,947.22	2,043.51	1,958.46	1,562.08	1,690.87	1,977.27	1,478.88
Total	807,446	605,991	27,411	74,737	38,147	47,799	13,361
TOTAL EXPEND.	1,561,703	1,080,740	81,292	158,634	92,355	107,417	41,265

Table 17: Proportional breakdown of expenditure by province and region of residence

This table shows the proportion of expenditures on wildlife viewing, fishing and hunting for each forest region and the province.

	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
	%	%	%	%	%	%	%
Wildlife viewing	20	22	19	13	11	15	23
Fishing	18	15	25	27	28	17	23
Hunting	10	7	22	13	19	23	21
All other outdoor activities	52	56	34	47	42	45	33
	100	100	100	100	100	100	100

Table 18: A comparison of recent studies

This table compares the annual participation, expenditures and use values for wildlife viewing, hunting and fishing found in three recent surveys. It also compares the proportion of expenditures by expenditure category.

Wildlife viewing	# of days (1000)	Annual Expenditure ($1000)	Use Value ($1000)
1983 Ministry of Environment*	8,563	507,212	135,475
1987 Environment Canada*	9,340	273,673	94,482
1989 B.C. Forest Service (Wildlife viewing only)	6,298	315,080	59,422
* includes all non-hunting wildlife activities.			
Hunting			
1983 Ministry of Environment	2,369	125,022	61,906
1987 Environment Canada	2,468	151,480	52,186
1989 B.C. Forest Service	2,943	161,890	89,656
Fishing			
1981 Ministry of Environment	5,677	174,973	171,819
1985 Environment Canada	4,754	169,496	104,869
1989 B.C. Forest Service	6,571	277,287	101,716

Please note:

# of days are for years stated.
Expenditures and use values are reported in 1989 dollars.

Other expenditure comparisons

	1987 Environment Canada		1989 B.C. Forest Service
Expenditure category	Wildlife viewing (%)	Hunting (%)	All recreation activities (%)
Equipment	39	39	43
Transportation	27	25	26
Food	16	13	17
Accommodation	11	6	9
Other	7	17	5

Table 19: Recreation activity value by region and recreation activity group

This table shows means and total adult recreation activity values per participant for each recreation activity group for each forest region and the province.

Activity Group	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Nature Study							
Mean	139.36	154.30	102.27	100.92	84.24	99.71	99.74
Total	131,486	107,267	2,981	9,107	3,969	6,131	2,031
Boating							
Mean	286.03	275.33	465.23	273.80	304.39	325.90	329.08
Total	115,235	81,463	4,644	11,698	6,077	8,068	3,285
Motoring							
Mean	422.98	480.05	307.25	303.11	350.56	255.02	330.81
Total	202,671	155,260	5,398	15,976	12,178	9,368	4,491
Fishing							
Mean	330.83	347.57	342.82	298.68	284.84	285.23	347.38
Total	101,716	64,256	6,023	13,238	7,279	7,175	3,745
Camping/Swimming							
Mean	168.29	170.20	197.62	137.18	160.92	172.56	226.23
Total	139,365	104,997	4,261	11,174	6,811	7,786	4,336
Hiking/Skiing							
Mean	234.24	246.36	224.06	224.05	157.69	199.02	194.13
Total	160,406	121,584	5,010	15,119	5,415	10,410	2,868
Hunting							
Mean	1054.18	1342.89	810.13	1084.27	1335.16	525.75	805.75
Total	89,657	42,360	6,793	14,287	13,861	8,817	3,539
All Others*							
Mean	1162.00	198.34	3688.21	2485.80	7612.26	2016.08	5692.11
Total	35,262	4,039	4,418	8,933	6,079	7,245	4,548

Please note:

The values recorded in this table have missing data imputed as in Table 1.

* Extremely small response rates in all regions except Vancouver for the "All Others" activity category resulted in unreliably high mean and total values.

Table 20: Annual preservation value of forest recreation by region

This table shows mean and total adult preservation values of the forest recreation resource for each forest region and the province.

Preservation Value	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Mean	53.62	53.71	67.79	37.74	61.53	71.41	58.92
Total	113,986	85,018	3,634	9,041	6,486	7,487	2,320

Please note:
The values recorded in this table have missing data imputed as in Table 1.

Table 21: Annual preservation value of each recreation activity group by region

This table shows mean and total adult preservation values of each recreation activity group for each forest region and the province.

Preservation Value by Activity Group	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Nature Study							
Mean	39.21	41.64	33.12	20.23	44.83	40.36	29.84
Total	29,183	23,609	643	1,665	1,462	1,437	367
Boating Act.							
Mean	12.53	12.81	22.79	8.10	12.96	13.01	8.05
Total	9,325	7,238	442	664	421	461	99
Motoring Act.							
Mean	10.11	10.70	9.91	6.09	11.90	8.88	6.45
Total	7,525	6,054	192	499	386	315	79
Fishing Act.							
Mean	21.29	18.41	32.81	24.60	35.38	36.47	25.82
Total	15,845	10,433	637	2,016	1,149	1,292	318
Camping/Swimming Act.							
Mean	26.42	26.40	31.20	21.49	31.51	28.85	22.82
Total	19,664	14,952	610	1,766	1,028	1,027	281
Hiking/Skiing Act.							
Mean	26.94	27.82	25.56	16.18	37.63	29.73	20.69
Total	20,051	15,699	496	1,326	1,222	1,053	255
Hunting Act.							
Mean	8.80	4.41	24.12	8.94	19.71	44.34	49.73
Total	6,550	2,574	460	722	631	1,561	602
All Other Act.							
Mean	7.85	9.47	8.05	5.72	5.82	9.69	26.10
Total	5,843	4,459	154	383	187	341	319
TOTAL PRESERVATION VALUE	113,986	85,018	3,634	9,041	6,486	7,487	2,320

Table 22: Annual preservation value of wildlife viewing by region

This table shows mean and total adult preservation values of wildlife viewing opportunities and the percentage of nature study attributed to wildlife viewing for each forest region and the province.

Preservation Value of Wildlife Viewing	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Mean	31.18	32.74	24.39	16.84	31.11	36.11	23.17
Total	17,113	13,869	363	953	830	871	227
Percentage of nature study	(58%)	(59%)	(56%)	(57%)	(57%)	(60%)	(62%)

Table 23: Annual preservation value of forest recreation by region and ROS Class

This table shows mean and total adult preservation values for forest recreation by ROS classes for each forest region and the province.

Preservation Value by ROS Class	Provincial Total	Vancouver	Prince Rupert	Kamloops	Prince George	Nelson	Cariboo
		Means ($)		Totals ($1000)			
Primitive							
Mean	53.84	53.32	52.77	33.59	75.00	84.32	48.86
Total	40,020	30,066	1,027	2,783	2,508	3,029	607
Semi-Primitive							
Mean	42.10	39.43	70.58	30.25	54.90	67.37	75.04
Total	31,293	22,308	1,356	2,488	1,822	2,404	915
Roaded Resource Land							
Mean	39.23	39.03	48.49	32.41	45.93	37.79	53.57
Total	29,160	21,978	942	2,687	1,538	1,361	654
Rural							
Mean	18.18	18.92	16.03	13.27	18.30	19.12	11.68
Total	13,513	10,666	309	1,083	618	693	144
TOTAL PRESERVATION VALUE	113,986	85,018	3,634	9,041	6,486	7,487	2,320

Table 24: Demographics of B.C. forest recreationists

This table shows mean adult RUDs for forest recreation by size of household, age, gender and household income.

1. **Size of household**

	Number of people living in each household					
	Total	One	Two	Three	Four	More than four
Mean RUDs	19.12	15.96	18.88	21.04	20.36	23.28

2. **Age**

	Age of respondent						
	Under 20	20-24	25-34	35-44	45-54	55-64	65 years and over
Mean RUDs	21.2	33.76	25.52	24.08	17.12	15.68	8.76

3. **Gender**

	Gender	
	Male	Female
Mean RUDs	21.16	15.04

4. **Household Income**

	Household income before taxes						
	Under $15,000	$15,000-$19,999	$20,000-$29,999	$30,000-$39,999	$40,000-$49,999	$50,000-$59,999	$60,000-$69,999
Mean RUDs	14.60	15.92	20.20	22.12	23.08	22.16	20.64

7.3 Glossary

Annual recreation expenditure - Total recreation expenditure for one year.

Daily recreation expenditure - Total recreation expenditure for one Recreation User Day (RUD).

Destination - The Forest Service Forest Region in which the respondent participated in a recreation activity.

Recreation activity - Any outdoor activity in which a respondent participates for the purpose of mental or physical revitalization.

Recreation Activity Day (RAD) - Participation in a given recreation activity for all or any part of a calendar day.

Recreation activity group - A group of related recreation activities.

Recreation activity or 'use' value - The amount a person is willing to increase his/her expenditures before deciding not to participate in a given recreation activity.

Recreation expenditure category - A category of total recreation expenditures such as transportation, accommodation, food, equipment, etc.

Recreation preservation or 'non-use' value - The amount a person is willing to pay annually to ensure that the recreation resource is maintained at its present level.

Recreation User Day (RUD) - Participation in any recreation activity for all or any part of a calendar day.

Region - The Forest Service Forest Region in which the respondent lives or recreates.

ROS class - One of six categories which describe the mix of recreation activities, settings and experiences likely to be found in a particular area of provincial forests.

7.4 List of related recreation research in B.C.

Camping

Camping in British Columbia: Recent Trends, Ministry of Lands, Parks and Housing, September 1986.

Camping Intentions by British Columbians, Ministry of Environment and Parks, June 1987, June 1988.

Camping Trends in British Columbia: The Canadian Camper Market, Executive Report, Park Management Services, B.C. Parks, November 1988.

Queen Charlotte Islands Recreation Survey, Ministry of Forests, Queen Charlotte Islands Forest District, 1988.

Sayward Forest Canoe Route Survey, Ministry of Forests, 1988.

User Survey Using a Traffic Classification Camera in Conjunction with Traffic Counters Within Tree Farm Licence 18, Ministry of Forests, 1984.

Visitor Profile and Visitor Estimates - Merritt Forest District, Ministry of Forests, 1989 - in progress.

Economic evaluations

Knetsch, J.L., "Legal Rules and the Basis for Evaluating Economic Losses", *International Review of Law and Economics*, Volume 4 (1984), pp. 5-13.

Knetsch, J.L., Sinden, J.A., "Willingness to Pay and Compensation Demanded: Experimental Evidence of Unexpected Disparity in Measures of Value", *The Quarterly Journal of Economics*, Vol. XCIX, No.3 (August 1984), pp. 507-521.

Murray, E., *Harvesting Crops Between the Trees: A Study in Recreation Valuation*, Wildlands Conservation, M.Sc. Thesis, Parks and Recreation Resources Unit, Department of Forest Resources Management, Faculty of Forestry, UBC, 1988.

Pope, L., *Using Cost-Benefit Analysis to Evaluate Forest Land Use Alternatives*, Natural Resources Management Program, Simon Fraser University, Report No. 40, 1986.

Hunting

Reid, R., *The Value and Characteristics of Resident Hunting*, Ministry of Environment, Wildlife Branch, 1985.

Skiing

Cross Country Ski Trails User Survey, Ministry of Forest, Cariboo Forest Region, 1987.

British Columbia Alpine Skier Survey 1985-1986, B.C. Ministry of Economic Development, February 1987.

British Columbia Nordic Skier Survey 1985-1986, B.C. Ministry of Economic Development, February 1987.

Sport fishing

Lindsay, R.A., *Sport Fishery Compensation of Tributary Streams of the Upper Arrow Lake*, Ministry of Environment, 1976.

Lindsay, R.A., *Investigations on Fish Populations Affected by the Revelstoke 1880 Dam*, Ministry of Environment, 1977.

Reid, R., *The Value and Characteristics of Freshwater Angling in British Columbia*, Ministry of Environment, Fisheries Branch, Report ISBN 0-7726-0457-6, 1986.

Stone, M., *Economic Values and Impacts of Freshwater Sports Fishing in British Columbia*, Fisheries Management Report No. 91, 1988, p. 61.

Travel and tourism

Adventure Travel in British Columbia, Outdoor Recreation Council of B.C., Volumes 1 and 2, 1988.

British Columbia Recreational Vehicle Campground/ Resort Study - Ministry of Economic and Regional Development and Ministry of Tourism, 1989.

Visitors '87 - A Travel Survey of Visitors to British Columbia, Ministry of Tourism and Provincial Secretary, Research Services Branch, 1988.

Visitors '89 - Fall 1989 - Spring 90. Ministry of Forests insert.

B.C. Resident Study, Canada - B.C. Tourist Development Industry Subsidiary Agreement, Fall 1990.

Wildlife and related activities

Marine Wildlife Viewing, Canada - B.C. Tourist Development Industry Subsidiary Agreement, Summer 1990.

Federal Provincial Survey on the Importance of Wildlife to Canadians, The Canadian Wildlife Service in cooperation with the federal, provincial and territory governments, 1989-90.

Dearden, P., Hall, C., *The Impact of Non-Consumptive Recreation on Wildlife*, Vance Bibliographies, Public Administration Series, 1984, p. 1458.

Filion, F., et al. *The Importance of Wildlife to Canadians in 1987: Highlights of a national survey.* Environment Canada, 1989.

Filion, F., et al. *The Importance of Wildlife to Canadians in 1987: The economic significance of wildlife related recreational activities.* Environment Canada, 1990.

Reid, R., Stone, M., and Rothman, F. *Report on the British Columbia Survey on Non-Hunting and Other Wildlife Activities for 1983*, Ministry of Environment, Wildlife Branch, Report ISBN 0-7726-0430-4, 1986.

Wildlife Viewing in British Columbia - The Tourism Potential, Economic and Regional Development Agreement, Queens Printer, Victoria, B.C., March 1988, p. 89.

7.4 Questionnaire

British Columbia Forest Service
Outdoor Recreation Study

Eighty-six per cent of B.C.'s land is Provincial Forest. It includes not only forest, but also large stretches of mountain, water and open range land. These lands provide an opportunity for a wide variety of recreation activities such as nature study, boating, motoring, fishing, camping/swimming, hiking/skiing, hunting and other outdoor activities.

The British Columbia Forest Service would like to know what recreation activities you participated in, in B.C.'s Provincial Forest lands during the last 3 months, that is April, May, and June, 1989.

Please help us plan for the future by filling in the attached questionnaire and returing it in the enclosed postage-paid envelope. All of your answers will be kept strictly confidential and your name will be crossed off our mailing list (by reference to your questionnaire number) as soon as we receive your reply.

Please complete and return the questionnaire whether or not you used B.C.'s Provincial Forest lands for recreation activities during April, May, and June, 1989.

Thank you for taking the time to help us determine how best to manage the recreation use of B.C.'s Provincial Forest lands for today and for the future.

THIS QUESTIONNAIRE SHOULD BE COMPLETED BY THE PERSON OVER 18 IN THE HOUSEHOLD WHO MOST RECENTLY HAD A BIRTHDAY

Recreation Activity Groups

NATURE STUDY

- scenic viewing
- wildlife viewing
- drawing/painting/ photography
- gathering/ collecting

BOATING

- motor cruising
- sailing
- windsurfing

- canoeing
- kayaking
- rafting
- water skiing
- other boating

MOTORING

- touring (including driving the highways and backroads for the purpose of enjoying the scenery)
- four-wheeling
- trail biking
- ATV use
- snowmobiling

FISHING

- all types

CAMPING/SWIMMING

- camping
- picnicking
- swimming
- beach activities
- skin/scuba diving
- surfing

HIKING/SKIING

- hiking
- mountaineering/ rock climbing
- hang gliding
- orienteering
- horesback riding
- snowshoeing
- downhill/cross-country skiing
- caving
- mountain biking
- bike touring

HUNTING

- all types

ALL OTHER

FOR EACH OF THE FOLLOWING QUESTIONS, PLEASE CIRCLE THE NUMBER OF THE APPROPRIATE ANSWER OR WRITE IN THE APPROPRIATE NUMBER IN THE SPACE PROVIDED.

Q1. Using the map on the opposite page, determine the Forest Region in which you live and circle the corresponding number below.

1. Vancouver	3. Kamloops	5. Nelson
2. Prince Rupert	4. Prince George	6. Cariboo

Q2. During April, May, and June, 1989, how many days (one day is all or any part of one calendar day) did you personally spend participating in outdoor recreation activities within B.C.'s Provincial Forest lands? Please refer to the map and the list of recreation activities on the opposite page.

DO NOT INCLUDE TIME SPENT IN NATIONAL, PROVINCIAL, OR REGIONAL PARKS, COMMERCIAL CAMPGROUNDS OR PRIVATE LANDS.

_____ **DAYS**

If zero check here ☐ and SKIP to Question 9.

Part 2: Recreation Activities in B.C.'s Provincial Forest Lands

In this section, please report on **only** those days you personally spent within **B.C.'s Provincial Forest lands during April, May, and June, 1989, for recreation.**

Q3. In Question 2, you recorded how many days you took part in recreation activities within B.C.'s Provincial Forest lands in April, May, and June, 1989. On how many of these days did you spend time in each of the following forest regions? (Please refer to the map on Page 2.)

		CHECK HERE IF ZERO
1. Vancouver	_____ DAYS	☐
2. Prince Rupert	_____ DAYS	☐
3. Kamloops	_____ DAYS	☐
4. Prince George	_____ DAYS	☐
5. Nelson	_____ DAYS	☐
6. Cariboo	_____ DAYS	☐

Q4. Below is a list of outdoor recreation activities. On how many days did you take part in each type of activity within B.C.'s Provincial Forest lands during April, May, and June, 1989?

Remember, one day is all or any part of one calendar day. Since you may have participated in more than one activity on any single day, the total number of days you enter below may be larger than the total number of days you entered in Question 2.

If you did not participate in any of the activities in a group, please check where indicated.

	NUMBER OF DAYS	*CHECK HERE IF ZERO*
NATURE STUDY		☐
— scenic viewing	_____	
— wildlife viewing	_____	
— drawing/painting/ photography	_____	
— gathering/ collecting	_____	
BOATING		☐
— motor cruising	_____	
— sailing	_____	
— windsurfing	_____	
— canoeing	_____	
— kayaking	_____	
— rafting	_____	
— water skiing	_____	
— other boating	_____	
MOTORING		☐
— touring	_____	
— four-wheeling	_____	
— trail biking	_____	
— ATV use	_____	
— snowmobiling	_____	
FISHING		☐
— all types	_____	

	NUMBER OF DAYS	*CHECK HERE IF ZERO*
CAMPING/SWIMMING		☐
— camping	_____	
— picnicking	_____	
— swimming	_____	
— beach activities	_____	
— skin/scuba diving	_____	
— surfing	_____	
HIKING/SKIING		☐
— hiking	_____	
— mountaineering/ rock climbing	_____	
— hang gliding	_____	
— orienteering	_____	
— horseback riding	_____	
— snowshoeing	_____	
— downhill/cross-country skiing	_____	
— caving	_____	
— mountain biking	_____	
— bike touring	_____	
HUNTING		☐
— all types	_____	
ALL OTHER		☐
— (specify)	_____	

Q5. The B.C. Forest Service divides areas where you may find outdoor recreation opportunities into four types:

PRIMITIVE: more than 8 kilometres (5 miles) from a road on which a highway vehicle can be driven; a natural environment, minimal evidence of human use, no motorized access.

SEMI-PRIMITIVE: less than 8 kilometres (5 miles) from a road on which a highway vehicle can be driven; a natural appearing environment, some evidence of human use, may or may not have motorized access.

ROADED RESOURCE LAND: accessible by a highway vehicle but with a natural environment and no more than moderate evidence of human use.

RURAL: accessible by a highway vehicle, a substantially modified environment and extensive evidence of human use.

On the chart below, please mark the number of days you spent in each of the activity groups in B.C.'s Provincial Forest lands during April, May, and June, 1989, in either primitive or semi-primitive areas. Then, please indicate the number of those days which were followed by overnight stays.

If you spent no time in primitive or semi-primitive areas during the past three months, check here and skip to Part 3.

ACTIVITY GROUPS	PRIMITIVE		SEMI-PRIMITIVE	
	DAYS	NIGHTS	DAYS	NIGHTS
NATURE STUDY				
BOATING				
MOTORING				
FISHING				
CAMPING/SWIMMING				
HIKING/SKIING				
HUNTING				
ALL OTHER				

PART 3: EXPENDITURES

The following questions focus on how much **your household** spent on recreation activities within B.C.'s Provincial Forest lands **during April, May, and June, 1989.**

Please include expenditures even if you personally did not go on the trip.

Q6. Enter how much your household spent on recreational activities in B.C.'s Provincial Forest lands during April, May, and June, 1989, in each category listed below.

a) TRANSPORTATION (eg. gas, oil, car rentals, vehicle repairs, planes, boats, buses, trains, ferries, etc.), to, from, and within B.C.'s Provincial Forest lands.

$ _____

b) ACCOMMODATION (eg. campgrounds, lodges, motels, etc.) Accommodation need not have been located within B.C.'s Provincial Forest lands provided that you were taking part in recreation activities within B.C.'s Provincial Forest lands on your trip.

$ _____

c) FOOD (eg. groceries, meals, beverages, etc.), consumed on trips to, from, and within B.C.'s Provincial Forest lands.

$ _____

d) EQUIPMENT used primarily for recreation activities in B.C.'s Provincial Forest lands (eg. camping gear, skis, canoes, guns, boots, cameras, binoculars, special clothing, etc.) Do not include any major items such as 4x4s, boats, snowmobiles, or motorhomes.

$ _____

e) OTHER ITEMS (eg. maps, books, films, film processing, etc.)

$ _____

Q7. What percentage of the total expenditures you listed in Q6 was spent on each of the following activities?

WILDLIFE VIEWING	_____	%
FISHING	_____	%
HUNTING	_____	%
ALL OTHERS	_____	%
TOTAL	**100 %**	

Q8. Considering your expenditures for forest recreation over the past three months as stated in Q6, **check one box in each row** that best represents the amount your costs would have had to increase before you would no longer have participated in each of the activity groups listed below.

ACTIVITY GROUPS	DOLLARS									OVER $1,000 (specify)
	0	25	50	100	200	300	400	500	1000	
NATURE STUDY										$ ____ .00
BOATING										$ ____ .00
MOTORING										$ ____ .00
FISHING										$ ____ .00
CAMPING/SWIMMING										$ ____ .00
HIKING/SKIING										$ ____ .00
HUNTING										$ ____ .00
ALL OTHER										$ ____ .00

PART 4: VALUES

Q9. What is the total amount that you personally would be willing to contribute voluntarily each year to protect and maintain the recreation resources of B.C.'s Provincial Forest lands for your own and future generations?

$ _____

If zero check here ☐ and SKIP to Question 13

Q10. What percentage of the amount you entered in Question 9 would you want used to protect each of the following types of outdoor recreation areas?

PRIMITIVE: more than 8 kilometres (5 miles) from a road on which a highway vehicle can be driven; a natural environment, minimal evidence of human use, no motorized access. _____ %

SEMI-PRIMITIVE: less than 8 kilometres (5 miles) from a road on which a highway vehicle can be driven; a natural appearing environment, some evidence of human use, may or may not have motorized access. _____ %

ROADED RESOURCE LAND: accessible by a highway vehicle but with a natural environment and no more than moderate evidence of human use. _____ %

RURAL: accessible by a highway vehicle, a substantially modified environment and extensive evidence of human use. _____ %

TOTAL 100 %

Q11. Of your contribution stated in Q9 above, what percentage would you want spent to protect the recreation opportunities in each of the activity groups below?

NATURE STUDY	_____ %
BOATING	_____ %
MOTORING	_____ %
FISHING	_____ %
CAMPING/SWIMMING	_____ %
HIKING/SKIING	_____ %
HUNTING	_____ %
ALL OTHERS	_____ %
TOTAL	100 %

Q12. Of the percentage that you stated for 'NATURE STUDY' in Q10 above what percentage would you want spent for the protection of wildlife viewing opportunities?

For example: If your 'NATURE STUDY' contribution was 20% of Q9, and you wanted to allocate half of that to the protection of wildlife viewing, then you would enter '50%' in the space provided. _____ %

PART 5: DEMOGRAPHICS

Q13. How many people are there living in your household? _____

Q14. To which of the following age groups do you belong?

1. under 20 years
2. 20 - 24 years
3. 25 - 34 years
4. 35 - 44 years
5. 45 - 54 years
6. 55 - 64 years
7. 65 years and over

Q15. Are you: 1. Male or 2. Female

Q16. Which of the following categories best describes your total household income in 1988 before taxes?

1. under $15,000
2. $15,000 - $19,999
3. $20,000 - $29,999
4. $30,000 - $39,999
5. $40,000 - $49,999
6. $50,000 - $59,999
7. $60,000 and over

Q17. Your comments regarding recreation use of B.C.'s Provincial Forest lands are welcomed.

_____

_____

_____

_____

_____

_____

_____

PLEASE RETURN THE COMPLETED QUESTIONNAIRE IN THE POSTAGE PAID ENVELOPE AS SOON AS POSSIBLE.

THANK YOU FOR YOUR TIME. WITH THIS INFORMATION WE WILL BE ABLE TO BETTER MANAGE B.C.'s PROVINCIAL FOREST LANDS. YOUR ASSISTANCE IS GREATLY APPRECIATED!